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M. A. P.

Historical sketch of  
Mass. Soc. for Promoting  
Agriculture from 1792-1857.



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THE MASSACHUSETTS SOCIETY

FOR PROMOTING AGRICULTURE.

The earliest society for the promotion of agriculture in the United States was established in Philadelphia, in the year 1785. The Massachusetts Society for Promoting Agriculture was the second institution of the kind, incorporated on the seventh of March, in the year 1792. The following is the Act of Incorporation :

COMMONWEALTH OF MASSACHUSETTS.

In the year of our Lord one thousand seven hundred and ninety-two.

An Act to incorporate and establish a Society by the name of the Massachusetts Society for Promoting Agriculture.

*Whereas*, Very great and important advantages may arise to the community from instituting a Society for the purpose of promoting agriculture, and divers persons having petitioned to this Court to be incorporated into a Society for this laudable purpose :

*Be it therefore enacted by the Senate and House of Representatives in General Court assembled, by the authority of the same*, That the said Petitioners, viz: Samuel Adams, John Avery, Jr., Joseph Barrell, Martin Brimmer, Charles Bulfinch, John Codman, Edward Cutts, Aaron Dexter, Thomas Durfee, Moses Gill, Christopher Gore, Benjamin Guild, Stephen Higginson, Henry Hill, Samuel Holten, Benjamin Lincoln, John Lowell, Jonathan Mason, Jonathan Mason, jr., Azor Orne, Samuel Phillips, Thomas Russell, Samuel Salisbury, David Sears, James Sullivan, Cotton Tufts, Charles Vaughan, and Thomas Winthrop, together with such others who shall become members thereof, be and they are hereby incorporated into and

made a body politic and corporate forever, by the name of the Massachusetts Society for Promoting Agriculture.

*And be it further enacted by the authority aforesaid,* That the said Corporation be and are hereby declared and made capable in law, of having, holding, purchasing and taking in fee simple, or any less estate, by gift, grant, devise, or otherwise, any lands, tenements, or other estate, real and personal, provided that the annual income of the said real and personal estate shall not exceed the sum of ten thousand pounds; and also to sell, alien, devise or dispose of the same estate, real and personal, not using the same in trade or commerce.

*And be it further enacted by the authority aforesaid,* That the said Corporation shall have full power and authority to make, have, and use a common seal, and the same to break, alter, and renew at pleasure; that it shall be capable in law to sue and be sued, plead and be impleaded, answer and be answered unto, defend and be defended in all Courts of Record, or other Courts or places whatsoever, in all actions, real, personal, and mixed, and to do and execute, all and singular, other matters and things, that to them shall and may appertain to do.

*And be it further enacted by the authority aforesaid,* That the said Corporation may make, establish, and put in execution, such Laws and Regulations, as may be necessary to the government of said Corporation, provided the same shall in no case be repugnant to the Laws and Constitution of this State. And for the well-governing of said Corporation, and the ordering their affairs, they shall have such officers as they shall hereafter from time to time elect and appoint, and such officers as shall be designated by the Laws and Regulations of the said Corporation for the purpose, shall be capable of exercising such power for the well-governing and ordering the affairs of the said Corporation, and calling and holding such occasional meetings for that purpose, as shall be fixed and determined by the said Laws and Regulations.

*And be it further enacted by the authority aforesaid,* That the end and design of the institution of the said Society is for the purpose of promoting useful improvements in Agriculture.

*And be it further enacted,* That the place of holding the first

meeting of the said Society shall be in the town of Boston ; and that Samuel Adams, Esq., be, and he hereby is authorised and empowered to fix the time for holding the said meeting, and to notify the same to the members of the said Society, by causing the same to be published in one of the Boston newspapers, fourteen days before the time fixed for holding the said meeting.

*In House of Representatives, March 7, 1792.*

This Bill having had three several readings, passed to be enacted.

DAVID COBB, *Speaker*.

*In Senate, March 7, 1792.*

This Bill having had two several readings, passed to be enacted.

SAMUEL PHILLIPS, *President*.

Approved.

JOHN HANCOCK.

True Copy. Attest :

JOHN AVERY, JR., *Secretary*.

After receiving their Act of Incorporation, the Massachusetts Society for Promoting Agriculture held their first meeting at the Council Chamber, in Boston, April 19, 1792. There were present at this meeting, Benjamin Guild, Thomas L. Winthrop, John Avery, jr., Samuel Adams, Benjamin Lincoln, and Aaron Dexter.

At this meeting, John Avery, jr., was chosen Secretary *pro tem.*, to record the transactions of the Society.\*

This meeting was adjourned to Thursday, the 26th of April, to meet at the same place at 11 o'clock, A.M., and the Secretary

\* Mr. Avery was Secretary of State for Massachusetts, for nearly thirty years, continuing in office from the early days of the government until his death, which occurred in 1806, at the age of 66 years. His wife was the daughter of Lieut. Gov. Cushing. John Avery, jr. was the grandson of Rev. John Avery, the first minister settled at Truro, on Cape Cod. Six of his descendants, of the same name, of successive generations, have graduated at Harvard College. He had a family of ten children,—one of whom, the widow of the late Isaac Mansfield, is living. John Avery, Esq., of Lowell, from whom these facts were obtained, is his grandson.

was requested to notify the members in Saturday's and Thursday's newspapers, to give their punctual attendance.

At the next meeting, April 26, were present Charles Vaughan, Aaron Dexter and John Avery, jr. The weather being stormy and but few members present, it was voted to adjourn to Thursday, May 3, in the same place at 11 A. M., after the regular notification of the meeting in the newspapers.

At this third meeting there were present John Lowell, Aaron Dexter, Christopher Gore, Charles Vaughan, Charles Bulfinch, Thomas L. Winthrop, John Avery, jr. Without transacting any business on this occasion, the meeting was adjourned to Thursday, May 31, to meet at the stockholders' room, in the office of discount and deposits of the U. S. Bank, in State Street, at 11 A. M.

At the meeting of this date, May 31, there were present Azor Orne, Thomas Russell, Moses Gill, Cotton Tufts, Thomas Durfee, Benjamin Lincoln, Charles Vaughan, Charles Bulfinch, Christopher Gore, Martin Brimmer, Aaron Dexter, Thomas L. Winthrop, John Avery, jr., Benjamin Guild.

John Avery, jr. was chosen Secretary of the Society. After this it was voted to proceed to the admission of members, who were elected by hand vote.

It was then voted that Dr. Tufts, Gen. Lincoln, Judge Lowell, Mr. Vaughan and Dr. Dexter be a Committee to frame such laws as they should think necessary for the government of the corporation, and report at the next meeting, which was appointed to take place on Thursday the 14th of June next, in the Massachusetts Bank in State Street, at 11 o'clock, A. M.

At this next meeting there were present Thomas Russell, William Seaver, James Warren, Elbridge Gerry, Timothy Newell, Cotton Tufts, Nathaniel Appleton, Fisher Ames, Joseph Russell, Dudley Tyng, Aaron Dexter, Charles Vaughan, Ebenezer Wales, Benjamin Guild, Loanmi Baldwin, Martin Brimmer, Joseph Warren, Christopher Gore, Nathaniel Gorham, Thomas L. Winthrop, Thomas Lee, George Lane, David Wood, Nathaniel Ruggles, Nehemiah Munroe, Benjamin Lincoln, John Avery, jr.

The Committee appointed at the last meeting to frame such



laws and regulations as they should think necessary for the government of the society, reported as follows :

ARTICLE 1. There shall be a President, two Vice-Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, and six Trustees, in addition to the above officers, who shall be Trustees by virtue of their office.

This was read and accepted. The other articles came under consideration, and after some debate it was voted that the same Committee who made the above report be a committee to revise and arrange the several articles and to report at the next adjournment. It was then voted to proceed to the choice of officers, as provided in the first article.

Dr. Dexter and Mr. Brimmer were made a Committee to collect, sort and count the votes, and reported the following officers chosen.

THOMAS RUSSELL, *President*.

JOHN LOWELL, *Vice-President*.

MOSES GILL, *Vice-President*.

JOHN AVERY, JR., *Recording Secretary*.

OLIVER SMITH, *Corresponding Secretary*.

AARON DEXTER, *Treasurer*.

COTTON TUFTS,	}	<i>Trustees.</i>
LOAMMI BALDWIN,		
JAMES BOWDOIN,		
CHRISTOPHER GORE,		
CHARLES VAUGHAN,		
MARTIN BRIMMER,		

It was then voted that there be a Committee to make collections of money for the benefit of this society ; but the choice of them was deferred till the next meeting, appointed to take place on Friday, June 22, at 11 o'clock, A. M., at Massachusetts Bank in State Street.

On June 22, were present—the President, the Vice-Presidents, Samuel Holton, Azor Orne, Thomas Durfee, Cotton Tufts, Timothy Newell, Fisher Ames, Thomas Lee, Loammi Baldwin, Benjamin Guild, Thomas L. Winthrop, David Wood, Charles Vaughan, John Avery, jr.

The Committee appointed to revise the regulations of the Agricultural Society, made the following report :

ARTICLE 1. That there shall be a President, two Vice-Presidents, a Recording Secretary, a Corresponding Secretary, and a Treasurer, who shall be Trustees *ex officio* ; in addition to these, six other Trustees shall be chosen from the members at large ; all of whom shall continue in office, until others are elected in their stead.

ART. 2. All officers, as well as new members, shall be elected by ballot. The election shall be determined by a majority of votes.

ART. 3. There shall be two stated meetings of the society annually, viz. : on the first Wednesday in April and October, the same to be held at 11 o'clock, A. M., at such place as the Trustees shall appoint, of which they shall give notice in one of the Boston newspapers, at least three weeks previous to said meeting.

ART. 4. There shall be an annual choice of officers, viz. : at the stated meeting in April, in the choice of whom twenty members shall be necessary to make a quorum ; in the transaction of other business thirteen may make a quorum.

ART. 5. If at any meeting of the Society or of the Trustees, the President and the Vice-Presidents should be absent, the members present may appoint one from among them to preside at such meeting.

ART. 6. The President, or in case of his absence, either of the Vice-Presidents, with the advice of the Trustees, may call a special meeting of the Society, or whenever written application, with reasons assigned therefor, shall be made by any twelve members of the Society to the President and Trustees, they shall call such meeting.

ART. 7. The meetings of the Trustees shall be held at such time and place as they shall from time to time agree upon, seven of whom with the presiding member shall make a quorum for the doing of business, except in the case of the election of members.

ART. 8. The Trustees shall regulate all the concerns of the Society, during the intervals of its meetings, propose such objects of improvement to the attention of the public, publish such communications and offer premiums in such form and

value as they shall think proper, provided the premiums offered do not exceed the funds of the Society, and shall lay before the Society at each of its meetings, a statement of their proceedings and of the communications made to them.

ART. 9. The candidate for election shall first be proposed by a member of the Society, and on being balloted for, if the number of votes in favor of such candidate shall amount to a majority of the members present, such person shall be considered as duly elected.

ART. 10. The Recording Secretary shall take minutes of all the votes and proceedings of the Society and of the Trustees, and enter them in separate books, and shall record all such communications as the Trustees may direct.

ART. 11. The Corresponding Secretary shall write all letters relating to the business of the Society, and answer all such letters to the Society as the Trustees shall direct.

ART. 12. The Treasurer shall receive all moneys due or payable to the Society, and all donations that may be made to it, for which he shall give duplicate receipts, one of which shall be lodged with the Recording Secretary, and make a fair record thereof, and from time to time pay out such moneys that may be in the treasury as he shall have orders for from the Trustees, and shall annually and whenever thereto required, render a fair account of all his receipts and payments to the Society, or a committee thereof. The Treasurer's accounts shall be kept in dollars and cents, and shall give bonds for the faithful discharge of his duty in such sums as the Trustees shall direct and with such sureties.

ART. 13. A Committee shall be chosen annually to audit the Treasurer's accounts, viz.: at the October meeting, and to report thereon at the next April meeting, and the same being accepted shall be entered by the Recording Secretary in his books.

ART. 14. In case of the death, resignation, incapacity or removal out of the State of either of the Secretaries, or of the Treasurer, the Trustees shall take charge of the official books, papers and effects belonging to the office that may be vacated, and give receipts for the same, which books, papers, &c. they may deliver to some person whom they may appoint to fill up

the office until the next meeting of the Society, at which time there shall be a new choice.

ART. 15. The present members of the Society, and such as may be elected previous to the April meeting, 1793, shall for the present year, severally pay into the hands of the Treasurer two dollars, for raising of a fund for carrying into execution the designs of the institution, and thence, afterwards, two dollars annually, shall be paid by each member, until otherwise ordered by the Society; the second year being considered as commencing on the first Wednesday of April, 1793.

ART. 16. A Committee shall be appointed from time to time, severally to solicit and receive subscriptions for raising of a fund for encouraging the noblest of pursuits, the agriculture of our country, the same to be sacredly appropriated to that purpose.

The above articles having been considered, paragraph by paragraph, were accepted and adopted as "The Regulations of the Massachusetts Society for promoting Agriculture."

A Committee of fifteen members, was then chosen, for the purpose of raising a fund for carrying into effect the designs of the institution. Their names are here given: Thompson I. Skinner, Justin Ely, Timothy Newell, Loammi Baldwin, Azor Orne, Samuel Phillips, Charles Vaughan, Moses Gill, Thomas Russell, William Baylies, James Warren, David Sears, Cotton Tufts, John Lowell, Levi Lincoln.

The meeting was then adjourned.

The organization of the Society was now completed, and preparations had been made for the commencement of its duties. The names of the original members, and of those who were elected under the corporate act, have all been given, in order that the history of its origin, as taken from the records, may appear complete. It will be seen that the originators of the Society and its earliest members were gentlemen of the highest standing in the country, distinguished for their wealth, their learning, and their public and private virtues, and the names borne upon the first rolls of the Society, are honored and freshly remembered at the present day. The Society originated in State

Street. Its earliest meetings for business were held there, and its officers were well known upon "change." Wealth as well as knowledge is power; and men who have united wealth with knowledge, have always been found among those who take the lead in enterprises for the public good. No man understands better than a well educated merchant, the mutual relations of all the great interests of the country, and their dependence on each other. He knows that a flourishing commerce depends upon a prosperous agriculture, and that it always must be the principal source of national wealth. Hence the earliest enterprises for the promotion of agriculture, have originated with enlightened merchants, who comprehended its advantages to the nation, and who possessed the pecuniary ability to carry out their liberal designs. These views will explain why the oldest Agricultural Society in the Commonwealth, should have been founded by men who transacted business in State Street, and why the foremost promoters of similar enterprises have been generally connected with commerce.

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### A. D., 1792.

The first regular meeting of the Trustees after the organization in June, did not take place until August 3, and was held at the house of Hon. Thomas Russell, the President. At that meeting, a vote was passed, ordering the following publication to be made in the next Thursday's "Independent Chronicle."

"In all countries it has been considered as an object of the first importance to promote agriculture, and in many of them, the institution of societies for that purpose, has been attended with great and happy effects; there is no country in the world in which there is a greater field for improvement than America. Massachusetts, and several other States of the Union, have adopted similar sentiments in regard to this great object; and agreeable to an Act of Incorporation passed the Legislature of

this Commonwealth, at their Session in March last, the Members of the Massachusetts Agricultural Society, have met, and elected their officers, as follows : \*—

“ They have also chosen a Committee to solicit subscriptions to raise a fund to be distributed in Premiums for the encouragement of useful discoveries and improvements. This Committee reside in different parts of the State.

“ The Trustees have agreed to meet once in each month, for the purpose of receiving communications, and promoting the purposes of the institution. It is greatly to be desired that the community at large, and especially the Members of the Society, would engage in earnest in this business ; would aid its funds, and make communications of any discoveries they may deem useful, with freedom ; the officers of the Society pledge themselves to pay every attention in their power to the great end intended. Among other measures, they recommend that the members in different parts of the State, would meet at stated times, in places convenient to themselves, and invite the aid of others who are desirous of forwarding improvements in agriculture, and that they would from time to time transmit to the Trustees, any information they may think useful.”

It will be seen, that almost at the outset, the Trustees commenced their monthly meetings, which have continued to the present day ; and the closing sentence of the above communication to the “ Chronicle,” foreshadows what has since taken place, the formation of separate associations for similar objects, throughout the State. Among the communications received, and read at this meeting, was : “ A Letter from the Hon. Cotton Tufts, inclosing a communication from Justin Ely, Esq., of West Springfield, respecting the method of raising hemp, as practiced by many of the farmers in the State of New York.”

At the next meeting, which was held in September following, several communications were read. The first was a Pamphlet, containing observations on the diseases, defects and injuries attending all kinds of fruit trees, and forest trees, with an account of a particular method of cure, invented and practiced by Wil-

\* The names have already been given.

liam Forsyth, Gardener to the King of Great Britain. It was presented to the Society by Mr. John Jenks, of Salem.

A Committee was appointed to make such extracts from communications on the subject of Agriculture, and to arrange such information for publication as may occur. Dr. Smith, Mr. Vaughan and Mr. Gore, constituted this Committee. This was the commencement of the system of circulating useful information, and it extended through many volumes.

The first semi-annual meeting of the Society, since the adoption of its constitution, took place on the third day of October. A large addition was made to the members of the Society, and among others, the celebrated agricultural author, Arthur Young, was chosen an honorary member.

At this meeting, it was voted, "That it shall be lawful for the Trustees to elect such persons to be members of this Society, as they think proper, and that this vote be made an Article in the Institution of the Society. Also, that that part of the 7th article, which renders seven necessary to be a quorum, be repealed, and in future, five only shall be necessary." Also, "That an application be made to the General Assembly requesting their aid for the promotion of the objects of the Society."

A Pamphlet, containing Papers and Letters on Agriculture, recommended to the attention of farmers, by the Agricultural Society of Canada, transmitted by Thomas A. Coffin, Esq., and transmitted by the Corresponding Secretary, was read.

At the meeting of the Trustees, on the following November, the Committee for obtaining subscriptions in aid of the Society, reported the following result:

Thomas Russell, Three hundred pounds, in six per cent. stock.

Christopher Gore, Two shares in the Bank of the United States.

David Sears, Two hundred dollars, three per cent. U. S. Stock.

Charles Vaughan, One hundred dollars, six per cent. U. S. Stock.

Samuel Elliot, One hundred dollars.

John Codman, Fifty dollars.

Joseph Blake, Twenty-five dollars.

James Tisdale, Twenty-five dollars.

Russell Sturgis, Twenty dollars.

Joseph Cooledge, Twenty-five dollars.

Joseph Russell, Twenty-five dollars.

Joseph Burrell, Two hundred dollars, in three per cent. stock.

Jeremiah Allen, Ten dollars.

Samuel W. Pomroy, One hundred dollars.

John Coffin Jones, Eighty-three dollars, in three per cent. stock.

James Bowdoin, The interest of £400, for five years, at six per cent.

William Wetmore, Two hundred dollars.

All these sums, or the interest upon the same, were to be appropriated as the Trustees should direct.

The President having offered to present to the Society a Common Seal, as expressed in the Act of Incorporation, a Committee was appointed to determine what this device should be. At the next meeting, in accordance with the report of the Committee, the following plan was adopted:—A plough should be a part of the device, with a pair of oxen, connected by a chain to the same. A stone wall, and a quick fence, with a gate; the field beyond the gate, with sheep and cattle; the motto—SOURCE OF WEALTH: filled upon the garter—around the margin of the Seal, *Massachusetts Society for Promoting Agriculture, incorporated 1792.*

At this meeting, a letter was received from Thomas Lee, inclosing the sum of one hundred dollars, for the use of the Society. A vote was passed that the names of gentlemen who shall be proposed as members of the Society, shall stand one month before the balloting. A letter was read from a gentleman, styling himself “A New Hampshire Farmer,” dated Dec. 26, 1792, describing a cart, constructed upon a new principle, for the loading of empty barrels, and convenient for hay.

At the meeting of the Trustees in January 1793, the Committee appointed in November previous, reported a form of petition to the General Court for aid. From this petition, which is an elaborate argument in favor of affording legislative encouragement to agriculture, one extract will suffice. “Agri-



culture being the basis of those arts which sustain and embellish life, none, we conceive, can more properly receive the protection of government, none which lays a higher claim upon the patronage arising from the disposition of the Legislature to promote the best welfare of the State."

A letter was received from Thomas Lee, inclosing an additional check for one hundred dollars, as a donation to the Society.

At the meeting held on March 11, it was voted that a premium of fifty dollars in value be granted to the person who shall, on or before the first day of July, 1795, give the most satisfactory account of the Natural History of Canker Worms. Also, a premium of one hundred dollars, to the person who shall invent the most effectual and the cheapest method of destroying these insects. A Committee was likewise appointed to consider, and report the proper objects for premiums, together with the Rules and Regulations by which claims therefor shall be ascertained, and the following articles were submitted to them for consideration :

The object of manures, and a premium for the best specimen of marl.

The culture of wheat.

For the largest quantity of beef upon the fewest number of acres.

The greatest stock upon the least quantity of land.

The best vegetable food, other than hay, for the winter season.

The largest quantity, and the best quality of wool from the fewest number of sheep, not less than ———

For butter, cheese, flax, and salted provisions.

For the best process of making cider.

The improvement of wild land.

The best method of manufacturing maple sugar.

The best method of raising trees.

At the meeting of the Trustees, in April, this Committee reported for premiums, all the subjects thus referred to them, giving all the conditions in detail.

The following resolution was passed at this meeting :

“Whereas the Massachusetts Society for Promoting Agriculture expects that many persons will engage in Agricultural experiments, who would be more gratified by the most honorable testimony of their merit, than it is in the power of the Society to confer by pecuniary rewards, therefore, voted, that a medal of gold, that shall be equal to three guineas, emblematically engraved, called the Society’s Gold Medal, be given to them, if they prefer the same.

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A. D., 1793.

The Annual Meeting of the Society this year, was held at the Branch Bank of the United States. The following officers were chosen for the year :

THOMAS RUSSELL, *President.*

JOHN LOWELL, *Vice-President.*

MOSES GILL, *Vice-President.*

JOHN AVERY, JR., *Recording Secretary.*

OLIVER SMITH, *Corresponding Secretary.*

AARON DEXTER, *Treasurer.*

JAMES BOWDOIN,	}	<i>Trustees.</i>
LOAMMI BALDWIN,		
MARTIN BRIMMER,		
CHRISTOPHER GORE,		
SAMUEL PARKER,		
CHARLES VAUGHAN,		

No other business was transacted, except the appointment of a Committee to audit the accounts of the Treasurer. It may be well to remark here, that this duty has up to the present day been regularly performed, and also that no bills or demands over \$10, are ever paid by the Treasurer, without a special vote of the Trustees upon each particular claim.

At the meeting of the Trustees in June, the Committee appointed to collect materials for publication, laid before the Trustees a Pamphlet containing the Laws and Regulations, &c., names of the present officers and members. list of premiums

offered, with some interesting extracts from foreign and domestic publications, which were accepted and ordered to be printed. It was then voted that one Pamphlet be sent to each member, and one to each of the honorary members, and that the Corresponding Secretary be requested to distribute them ; also one to every clergyman of the Commonwealth, with a circular letter to be signed by the President and countersigned by the Secretary ; and that three hundred of the Pamphlets be sold at the prime cost, and be left at Mr. Isaiah Thomas's book-store, in Worcester, for this purpose.

At this period there was scarcely a meeting of the Trustees, at which there were not communications read in relation to the canker-worm ; and we are led to infer that this insect was a more severe pest even in that day than it is at present, bad as it now seems to be.

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### A. D., 1794.

At the meeting of the Trustees in January, 1794, a letter was received from Dudley Atkins Tyng, Esq., with a plan for setting on foot a subordinate society for promoting agriculture in the county of Middlesex, which was cordially responded to.

At the February meeting a Committee was appointed to consider the expediency of procuring a piece of ground for the purpose of agricultural experiments. Among other communications received at this time, was a comprehensive one from Mr. Calvin Bullock, upon the rise and progress of the canker-worms, the method of making maple sugar, the preservation of exhausted trees, the revival of a barked apple-tree, and a philosophical prevention of smoky chimneys.

At the general meeting of the Society this year, (Oct. 1794,) Dr. Tufts presented a species of marl, which was placed in the hands of a Committee, consisting of Dr. Tufts, Dr. Dexter, and Mr. Peck, to make experiments to ascertain its real quality, and report. The result of their observations was given in a report to the Society at its next semi-annual meeting.

A. D., 1795.

The officers and trustees of the Society of the last year were re-elected for the ensuing year. The number of members having greatly increased, it was voted at the annual meeting, that fifteen members should constitute a quorum, for choice of officers. At the semi-annual meeting, in October, it was voted to hold the annual meeting in June, in order that members from the country who attend the General Court might be present.

Another pamphlet, containing prize essays and other agricultural information was published this year. Several communications and essays were presented to the Trustees, relating to subjects for which premiums had been offered.

The premium of fifty dollars was awarded to the Rev. Mr. Whitney, of Shirley, for his Essay on Compost Manures ; and the Secretary was ordered to publish it in all the newspapers ; also an Essay on the same subject, for which a second premium of thirty dollars was awarded to Mr. Jesse Bannister of Brookfield. The premium of fifty dollars for an Essay on Canker-worms, was adjudged to William Dandridge Peck, of Kittery, and one of twenty-five dollars to Rev. Jonathan Newhall, of Stowe ; also a premium of twenty-five dollars on the best and most expeditious method of destroying brush without ploughing, to a gentleman whose signature was " Farmer."

A letter was communicated from Newman Bruchenberg, giving an account, and accompanied with a sample of a new species of wheat, with an Essay on the culture of the same, by John Taylor. The Society voted to procure twenty bushels of this wheat for the use of the Society, and to publish the Essay on its culture in one or more of the Boston newspapers.

The sample of wheat which was sent by Mr. Bruchenberg was distributed in various portions among several of the members. At another meeting a letter was received from Thomas Austin Coffin, Esq., of Quebec, to the Secretary, informing him that he had forwarded half a barrel of Canadian wheat, to be divided among the members of the Society. This was also distributed among them in a similar manner.

A. D., 1796.

The officers of the Society for this year, were—

JOHN LOWELL, *President*.

MOSES GILL, *Vice-President*.

JOSEPH RUSSELL, *Second Vice-President*.

JOHN AVERY, JR., *Recording Secretary*.

OLIVER SMITH, *Corresponding Secretary*.

AARON DEXTER, *Treasurer*.

MARTIN BRIMMER,

GEORGE CABOT,

JOHN CODMAN,

REV. MR. PARKER,

CHARLES VAUGHAN,

THEODORE LYMAN,

} *Trustees.*

The time of the stated meetings of the Society was changed to the second Wednesday in February, and the second Wednesday in June, at the latter of which, the officers were to be chosen. The annual assessment of two dollars upon each member was reduced to one dollar. Dr. Smith, the Corresponding Secretary, died this year, and his funeral was attended by the Society. New premiums were offered for various objects connected with agriculture, and many valuable communications were offered, some of which were published in the transactions. It was also voted to make an application to the Legislature, in behalf of the Society, to defray the expenses of printing such papers as the Society shall think calculated to promote agricultural knowledge ; and that those who are entitled to receive the journals and acts of the Legislature, and each member of this Society, be furnished with a copy.

At a meeting of the Trustees it was voted that the Society's gold medal have, for its device, the seal of the Society on one side, and engraved on the reverse these words—Presented to (A—— B——,) 1796.

A letter was read from Rev. Jonathan Newhall, of Stow, to whom the gold medal had been awarded, requesting the Trustees, if they thought proper, to be pleased to perpetuate their generosity by some useful piece of plate, to the value of the

medal, and it was agreed to comply with his request, and in the place of the medal a silver cup was presented to him.

The Society's gold medal was awarded to Rev. Mr. Reuben Holcomb, of Sterling, for a premium essay on the cultivation of wheat, and a premium for an essay on improving wild land to Mr. Frederick Plympton, of Sturbridge.

A letter was afterwards received from Rev. Mr. Holcomb, dated Nov. 10, 1796, "expressive of the high esteem he takes of the approbation of the Trustees of the Agricultural Society for their favorable reception of his essay on the culture of wheat, and that he considers its principal value to consist in its being the expression of that benevolence which gave rise to their institution, and if it was their pleasure, that instead of the gold medal, a silver sugar bowl would be more agreeable to him, provided the value of a decent one should not exceed that of the gold medal voted him." The Trustees accordingly voted to accede to his request.

At the March meeting, 1797, Dr. Dexter, Rev. Dr. Parker, and Charles Vaughan, Esq., were appointed a committee to form a table of the times of the leafing and blossoming of forest trees and shrubs, and of the leafing, blossoming and ripening of fruit trees and plants; and to get such a number printed as they shall judge proper, and transmit them to such persons as they shall think capable of making observations upon the subject. Six hundred of these were afterwards printed, and were transmitted to each member of the General Court, and to others of scientific turn of mind.

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### A. D., 1797.

The place of Dr. Smith, deceased, was supplied at the June meeting of the Society by the choice of Jonathan Mason, Esq., of Boston, as Corresponding Secretary. The records of this year show a constant attention, on the part of the Trustees, to the objects of the Society, more particularly in obtaining and disseminating agricultural knowledge. The Society having

accumulated by gift and purchase, a considerable number of works on agriculture, a regular library was formed, the Corresponding Secretary was appointed librarian, and rules were adopted for using the books. As a specimen of the subjects upon which inquiries were made and information obtained, several communications might be named, which were handed to the Trustees from Hon. Mr. Bunday, of Nova Scotia, viz., "on the advantage of hoeing turnips; an experiment to determine the most profitable sort of sets, in planting potatoes; on the benefit of transplanting apple trees; the process and result of an experiment for ascertaining whether or not it is advantageous to cut potatoes designed for seed."

A communication was also received from William Russell, Esq., of Middletown, Conn., "on the success of an experiment (made by him) upon a small field of white wheat," and another from Mr. Joseph Cooper, of Cooperstown, N. J., upon the Hessian Fly. Also observations of Mr. Benjamin Vaughan, of Kennebec, "on preparing woodlands for cultivation, as practised in the vicinity of the Kennebec River."

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### A. D., 1798.

The only change made this year in the Board of Officers was the choice of Rev. John Thornton Kirkland, as Corresponding Secretary, in the place of Jonathan Mason. At the annual meeting it was voted to offer a premium, the amount of which is not stated, "to the person who shall ascertain by accurate analysis the constituent parts of several fertile soils respectively, and in like manner the parts of several poor soils, and thus shall discover the defects of the latter, and shall show by actual experiment how the said defects may be remedied, by the addition of earths or other ingredients which may be found in the country, and in a manner that may be practised by common farmers. And if it shall appear to the satisfaction of the Trustees, that upon an extensive practice, the improvement of

the poor soil would be more than equivalent to the expense of the improvement, the addition of one hundred dollars."

Other premiums were offered for various objects, in the course of the year, but this is cited for the purpose of showing how eminently practical and far-seeing were the aims of the Society, at this early period.

Another important subject occupied the attention of the Trustees, at this time, which has not since been neglected. This was the introduction of seeds, of various kinds, as well as varieties, new to New England. Votes like the following, are frequent upon the records of the Society :

*Voted*, That Dr. Dexter be requested to write to William Russell, Esq., to procure and send, by the first convenient opportunity, twenty bushels of Early Virginia Wheat.

*Voted*, That the Corresponding Secretary be requested to write to Mr. William Strickland, in England, requesting him to send several kinds of potatoes, such as the President shall think proper, and to draw upon Mr. Lane for the expense.

These seeds were distributed as generally as possible throughout the State. Communications were constantly received in competition for the premiums already offered, which were always referred to a Committee to report upon their merits, and if entitled to a premium, they were usually printed in the papers of the day, or placed in the hands of the publishing committee for the purpose of being printed in their transactions. Every effort was made in this way, to bring out information upon useful topics ; and the Trustees themselves, were each called upon to furnish one article, "such as may be considered worthy of publicity," to be placed in the hands of the Publishing Committee. Many of these will appear in the re-publication of a portion of the Society's transactions.



A. D., 1799.

The only change in the Board of Officers and Trustees, was the election of Thomas L. Winthrop, Esq., in the place of Charles Vaughan, Esq.

An agricultural society was this year established at Sturbridge, the formation of which was announced by a letter from Dr. Babbit, and asking the advice of the Trustees, as to what books might be useful to the new society. The Corresponding Secretary was directed to send to Dr. Babbit such books as had been printed by the Society, and to loan him such others as might be wanted to promote the objects of the Society; likewise, to assure him "that this Society would be happy to co-operate with them, in any matter that will promote the object of their institution." The Corresponding Secretary was also directed to write to the Secretary of the Western Middlesex Agricultural Society, enclosing a number of the publications of this Society, and expressing its desire to co-operate with them by giving premiums for improvements, and publishing any of their valuable communications.

A list of questions similar to those now issued by the U. S. Patent Office, was printed this year, and sent to various parties throughout the State for answer. The number of queries amounted to forty-nine. Twelve hundred copies were printed and distributed, with an explanatory circular letter, signed by the President.

Mr. Lowell, in the concluding part of his letter, says: "The Society possesses means of causing useful information to be published and diffused, and to reward, in some degree, the efforts of the ingenious and industrious in any new attempts of improvement, which they have intrusted the Trustees with the application of. Our central situation, and nearness to each other, give us the advantage of frequently meeting, and receiving information. We do not, however, affect to disguise that our usefulness is, and will be, very much circumscribed without the aid of the practical farmer, and that it is only as an organ of information, that we can be extensively of importance."

It was this great advantage of frequent meetings, kept up to

this day, that undoubtedly induced the members of the Society to elect Trustees residing in or near Boston. There are but few farmers who can afford to devote twelve days in the year to meetings, and to give the time necessary to perform other duties devolving upon them, added to the expenses of travelling.

Wheat from Rio Janeiro, and potatoes from England, were distributed this year among the members.

### A. D., 1800.

Several changes in the Board took place this year. They are given as follows:

JOHN LOWELL, *President.*

JOSEPH RUSSELL, *Vice-President.*

AARON DEXTER, *Second Vice-President.*

JOHN AVERY, JR., *Recording Secretary.*

JOHN T. KIRKLAND, *Corresponding Secretary.*

THOMAS L. WINTHROP, *Treasurer.*

MARTIN BRIMMER,	}	<i>Trustees.</i>
GEORGE CABOT,		
THEODORE LYMAN,		
SAMUEL PARKER,		
FISHER AMES,		
JOHN WARREN,		

Mr. Cabot communicated a description and a model of a mould-board plough, extracted from a letter from Mr. Jefferson to Sir John Sinclair, President of the Board of Agriculture at London.

Mr. Elias Haskett Derby presented to the Trustees two bags of winter wheat, of excellent quality, from Naples.

Various communications in reply to circular and questions, were received. A second printed list of questions, amounting to fifty, was printed and circulated among the farmers in the State.

The Committee appointed the previous year, on several communications upon various subjects, from a gentleman who styled himself a farmer, reported "That they had with attention con-

sidered the several matters, and found nothing unusual in them ; that our publications contained more information upon the subject of manures, than his letter No. 7 ; that his mode of making drains has not been published by the Trustees, but is contained in most of the late European books on that subject, and must in their nature be merely temporary. The Committee could not comprehend what he meant by the Slug-worm ; but it had been a common practice, and well known to all our good farmers, that plowing their land in the autumn will have the best tendency to destroy any kind of worm. That his mode of planting forest trees, was as well known here as in the Jerseys, therefore, the Committee were of the opinion that the gentleman was not entitled to a premium."

A communication on the subject of raising oaks and other forest trees from seed, by a gentleman whose signature is Z. was received, and it appearing that the author had raised near four thousand forest trees from the seed, three or four years old, it was voted that the author was entitled to the premium offered by the Trustees in 1798, provided the facts were properly substantiated. This premium was finally adjudged and paid over to Col. Robert Dodge, of Hamilton, to whom the signature of Z. belonged.

A few bushels of genuine Siberian Wheat, imported by Gorham Parsons, was presented by him to the Society for distribution.

A machine for sowing seed was exhibited to the Trustees for their inspection, and it was voted that the Corresponding Secretary be authorized to draw upon the Treasurer of this Society for five dollars to pay Mr. Kent for said machine, and that it be lodged with the Corresponding Secretary.

A. D., 1801.

There was no change in the Board of Officers this year.

A communication with the signature of Chelsea was presented to the Trustees, suggesting "whether if a fair was held on Cambridge Common in May and again in October, and small bounties given for certain articles mentioned, it would not be a spur to our brother farmers?"

This is the earliest suggestion found in relation to fairs, and the subject received much attention from time to time. The plan was not to have shows merely, but likewise that they should be stated and open markets for the sale of agricultural products.

A vote was passed this year subscribing five hundred dollars for the establishment of a professorship of Natural History at Cambridge, and a Committee was appointed to procure subscriptions for its permanent endowment and for the support of a Botanic Garden. This was the first movement which was made in this direction, and it ended in the establishment and endowment of the Professorship with the Botanic Garden as it now is.

This year witnessed the publication of the first of a regular series of papers, original and selected, on Agriculture. It contained a list of premiums offered by the Trustees, which, together with the preface, is worthy of notice, as representing the wants and deficiencies of those days, which are still far from being remedied. It is therefore inserted at length.

#### PREFACE.

*To the Farmers of Massachusetts.*

IN presenting you with the following Papers, the Trustees of the *Massachusetts Society for Promoting Agriculture*, feel a sensible regret, that they do not comprise more original matter. After their repeated invitations to those who are engaged in agricultural pursuits to communicate to them "every hint, observation and experiment, relating to husbandry," they flattered themselves, that they should have been furnished with abundant matter for the present volume.

They, however, are much indebted to those gentlemen, whose communications are contained in the subsequent papers. To supply the deficiency of original information, they have had recourse to such printed works, as, in their opinion, will furnish the industrious farmer, with many hints for experiments, which may prove highly advantageous.

AMONG the papers that are original and American, the letter from Mr. COOPER is of the utmost importance. It has long been thought, that an exchange of seed from the south to the north, or from north to south, was absolutely necessary to insure a good crop. But from the experiments of that gentleman it clearly appears, that this necessity is superseded by a proper selection of the earliest, strongest and most flourishing stalks from which the seed for corn, wheat, rye, &c. should be taken, and the fairest and best favored roots. The Trustees, therefore, recommend an attentive perusal of that communication to every agriculturist.

AN attention to the preservation of fruit trees, and particularly to the culture and management of orchards, is, at the present period, of the utmost consequence to the fruiterer and manufacturer of that wholesome and agreeable liquor,\* which has become so necessary to the people of New England. If any of the papers in the following selection have a tendency to excite the public attention to this important object, the Trustees will be highly gratified.

BUT of all the subjects that require the serious consideration of the practical farmer, manures, and their proper application to different soils, are among the first. Upon this subject a proper attention has not yet been bestowed, though of primary importance, and upon which, in a great measure, in our climate and soil, the success of the husbandman depends.

IMPRESSED with this idea, the Trustees have concluded that they could not furnish their readers with a more acceptable and instructive entertainment, than is contained in the copious extracts from a late report, presented by the Board of Agriculture in *England*, to our Society. It contains information from what various materials manures may be collected, their application to different soils, and the probable success arising from such judicious management. They cannot forbear to enforce upon every agricultural man a careful perusal of those extracts.

IN respect to the premiums now offered, they beg leave to observe, that inasmuch as the canker-worm has in some places made its appearance again, it is judged proper to continue the premium for the most effectual and cheap method for its destruction, and also for that of the slug-worm.

THE great consumption of wood and timber beyond the annual growth, must, in the settled parts of our country, soon leave us destitute of both, unless remedied by propagation, and must excite the serious concern of every friend to the public prosperity. To induce the farmer to cultivate forest trees, and particularly the oak, the Trustees have thought it expedient to offer a premium for raising, from the seed, such forest trees as are deemed the most useful; and they hope to see the time when no man will cut a tree from his land without planting two in its stead.

Should any thing contained in this publication prove beneficial to the interests of agriculture, or any way tend to promote that important science, the Trustees will think themselves well rewarded for their trouble.

\* Cider.

*Premiums offered by the Trustees of the Massachusetts Society for promoting Agriculture.*

1st. To the person who shall discover an effectual and cheap method of destroying the Canker-worm, and give evidence thereof, to the satisfaction of the Trustees, on or before the 1st day of October, 1803, a premium of *one hundred dollars*, or the Society's gold medal.

2d. AND a Premium of *one hundred dollars*, or the Society's gold medal, to the person who shall, on or before the 1st day of December, 1803, discover an effectual, and the cheapest method of destroying the *Slug-worm*, and give evidence thereof to the satisfaction of the Trustees.

3d. AN annual Premium of *thirty dollars* for five years, to the person who shall introduce into the State of *Massachusetts*, for the purpose of propagation, a ram or ewe of a breed superior to any now in the State; if from a foreign country, *fifty dollars*. Claims to be presented on or before 1st of October annually.

4th. To the person who shall produce the largest quantity of wool, meat and tallow, from the smallest number of sheep, not less than one score, raised on his own farm, a premium of *thirty dollars*, to be claimed on or before the 1st day of August, 1804.

5th. To the person who shall, in one year, by a method new and useful, or that shall be an improvement on the methods already practised, make the greatest quantity of compost manure in proportion to the expense, to be of a good quality, and composed of materials common to most farms; the quantity to be at least two hundred tons, and the claim to be accompanied with a description of the yard or place, and the mode in which the same is made, a premium of *fifty dollars*, or the Society's gold medal. And for the next greatest quantity, being not less than one hundred tons, *thirty dollars*. Claims to be presented previous to the 1st of August, 1803.

6th. To the person who shall shew, by actual experiment, on not less than two acres, to the satisfaction of the Trustees, a new or improved, being the best and cheapest method, of introducing fine grass, fit for hay or pasture, into low fresh meadows, now producing coarse wild grass, or bushes, a premium of *thirty dollars*. Claims to be presented before the 1st November, 1804.

7th. To the person who shall discover any species of grass, not commonly cultivated or known, of a quality for the food of neat cattle or horses, equal or superior to those now in use, *fifty dollars*. Claims to be presented on or before the 1st October, 1804.

8th. To the person who shall exhibit distinct specimens of the greatest variety of grasses in general use, and specify, to the satisfaction of the Trustees, their respective qualities, productiveness and usefulness as food for different kinds of animals, a Premium of *fifty dollars*, to be claimed on or before the 1st October, 1803.

9th. To the person who shall produce from seed, the best growth of thrifty trees, not less than 600 in the whole, and in the proportion of 2100 to the acre, of any of the following kinds of forest trees, *viz.* oak, ash, elm, sugar maple, beech, black or yellow birch, chestnut,

walnut or hickory, *twenty-five dollars*; if all of oak, *fifty dollars*. Claim to be made on or before the 1st October, 1806.

10th. To the person who shall ascertain, by accurate analysis, the constituent parts of several fertile soils respectively, and in like manner the parts of several poor soils, and thus shall discover the defects of the latter; and shall show, by actual experiments, how the said defects may be remedied by the addition of earths or other ingredients, which abound in the country, and in a manner that may be practised by common farmers, *fifty dollars*. And if it shall appear to the satisfaction of the Trustees that, upon an extensive practice, the improvement of the poor soil would be more than equivalent to the EXPENSE of the improvement, the addition of *one hundred dollars*. A minute description of the several soils, and all the circumstances attending the processes, cultivation and results, will be required. Claims to be made on or before November, 1804.

11th. It is required that the Communications, for which the foregoing Premiums are offered, be accompanied with proper certificates from the Selectmen, Magistrates or Clergymen of the vicinity, or other vouchers, to the satisfaction of the Trustees; that they be delivered in without names, or any intimation to whom they belong; that they be severally marked in such manner as each claimant shall think fit; the claimant sending also a paper, sealed up, having on the outside a corresponding mark, and on the inside his name and address.

*By order of the Trustees.*

JOHN AVERY, Secretary.

A. D., 1802.

The same Board of Officers was continued this year.

A letter was received from Col. Humphries, late Minister to the Court of Spain, on the Merino Breed of Sheep, with a specimen of their wool, and remarks on the importance of propagating said sheep in the Northern and Eastern States. The letter mentioned that Col. Humphries had imported into Connecticut seventy-five ewes and twenty-five rams. The subject was referred to a committee consisting of Mr. Lyman, Mr. Cabot and Dr. Dexter, to consider the same and report thereon.

The introduction of Merino Sheep may be dated from this time, and so important it seemed, that at the next meeting of the Trustees, after Col. Humphries' letter was received, the question was raised whether Col. Humphries should not receive

the gold medal, for his services, and at the following meeting it was awarded to him, not to exceed fifty dollars in value. A premium had already been offered to the person who should introduce Merino Sheep into the country, and the amount paid in this way was very considerable. The first claimant for this premium was Seth Adams, for the importation of two Sheep, of the Merino breed, from France.

The premiums offered by the Trustees, published in a pamphlet in the year 1801, were taken into consideration, and it was voted that the articles Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, be reprinted in the publication which was about to be made. An amendment was proposed in the 3d article, as follows, viz. : An annual premium of \$30, for each year previous to 1806, to the person who shall introduce into the State of Massachusetts, for the purpose of propagation, a ram or ewe, of a breed superior to any in the State at the time they are introduced ; if from a foreign country, the premium should be \$50.

The Corresponding Secretary informed the Trustees that "after a very great exertion, he had procured a few copies of the publications of this Society, and had them bound." This fact shows how readily they had gone into general circulation and use.

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### A. D., 1803.

There was no change in the Officers of the Society.

A letter was received from Mr. Peter Halloway, respecting the making of cider, and several suggestions in regard to the expediency and importance of importing certain grains from Europe ; and it was voted that the Corresponding Secretary be requested to return an answer to Mr. Halloway, and to inform him of the pleasure afforded to the Trustees by his attention to the subject of his communication, and to transmit him one of the late publications of the Society.

A Committee, consisting of Hon. George Cabot, Dr. Aaron Dexter, and Rev. Dr. Kirkland, was appointed to collect materials for publication.



Theodore Lyman was desired to import from England, for distribution, one hundred pounds of foxtail grass.

A letter was received from Ward Nicholas Boylston, in relation to the rose-bug, and the method of destroying it.

A Committee was appointed, at the request of Mr. Joseph Swazey, of Newburyport, to examine a Patent Machine for shelling Indian Corn, on a new and improved method.

A premium was offered "to the person who shall, by actual experiment, on a quantity not less than half a ton, show the best method of curing clover hay with salt, regard being had to the quality of the hay, the saving of labor, and the shortness of time between cutting it, and packing it in the mow."

A summary of observations made on the leafing and flowering of trees near Boston, and on the first specimens of ripe fruit and esculents, was presented by James Winthrop, Esq., of Cambridge.

The Committee on Publications reported that they had prepared, and put into the hands of the printer, materials for a book, consisting of communications to the Society, and selections from a variety of printed works, on Agriculture.

The articles in this number are varied, and most of them short, as will be seen by the following

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The Preface is worthy of notice in a history of agricultural progress, and is therefore inserted.

#### PREFACE.

THE Trustees of the Massachusetts Society for promoting Agriculture offer the public their collection of papers for 1804, being the 7th number of their publications. The pamphlet consists of a few original communications, believed interesting and seasonable, and of selections from foreign works adapted to the use of cultivation in this country. It will be remembered that the object and duty of the Board is to convey to practical farmers through the press, the agricultural information which they receive or learn from others. Whilst on this account, they are not responsible for the accuracy of every statement or the justness of every opinion contained in their books, they mean to insert nothing, which is not recommended by the appearance of novelty, ingenuity or utility. They are satisfied the series of papers, which they have laid before the public, including the present pamphlet, will be found to contain, not only some highly interesting articles of natural history, but valuable hints and facts respecting several of the leading parts of husbandry. Though in many instances the methods of cultivation in use may be the best which, considering the capital of the farmer, the comparative value of labour and land, and other circumstances, can be adopted, yet in other instances much room exists for improvement. It cannot be doubted that information conveyed in printed works may be subservient to the correction of errors in opinion and practice, and to the diffusion of good modes of culture.

Those who take the trouble to prepare this publication are aware, that in this subject theory is good for nothing till sanctioned and confirmed by experience; that old modes of husbandry ought to be held in respect and changed with caution and moderation,\* and that *farming by books* merely, is justly derided. At the same time they are convinced that Agriculture derives aid from the discoveries and labours of the philosopher, the naturalist and the chemist; that principles grow out of practice; and that inquiry is the road to improvement. They have no more respect for a bigoted attachment to injudicious customs, than for a rash spirit of innovation; nor can they ascribe wisdom or modesty to those, who think their own practice comprises all that is or can be known, and refuse to read printed documents, which relate the observations and experiments of others.

The different results of the experiments on *potatoes*, as related in the two first papers of this collection, will naturally excite attention, and probably put those, who are not satisfied about planting large or small potatoes, eyes, or cuttings, upon further trials of the different methods.

\* "Nor then the rules, our fathers taught, despise,  
Sires by long practice and tradition wise."

SOTHERY'S TRANS. GEORGICS, B. I. v. 115, 116.

The observations on the *progress of vegetation*, in the next paper, comprise a part of natural history, which is evidently applicable to the use of agriculture. A sufficient number of notices of this kind would afford the best sort of almanac for regulating seed time. It is hoped gentlemen in various parts of the country will frame and fill up similar tables. Where the several trees, shrubs and plants, here mentioned are wanting, they may be supplied by other kinds. The field or the wood will compensate the deficiency of the garden.

We publish a new confirmation and illustration of Mr. Cooper's doctrine and practice, respecting *seeds*, as related in a letter of his in a former number, and it is to be wished that every farmer will endeavour to test and be able to verify them for himself.

The sketch of *soils and manures* must be useful to all who would have the habit of discriminating the several species of each, and adapting culture accordingly; and the analysis of *lime* and *marl* requires so much knowledge of chemistry only as can be learned and applied by the common farmer. The treatise on the culture and preparation of *hemp* being intended for the inhabitants of Canada, is of course applicable to our instruction.

The efficacy of *salt in curing clover* is proposed to the serious attention, and the careful experiments of farmers. The documents here published will show how much reason there is to expect it will be found highly beneficial; and the *premium* offered by the Trustees, is added to other inducements, for giving it further trials.

The files of the Society contain a number of sets of answers to Agricultural Questions sent out by the Trustees some years ago. They delay making use of what they have in hopes of more. Will farmers, into whose hands they are put, favour them with their answers, that they may proceed to give the public the information received either entire or digested? For this and other assistance in fulfilling their office, the Trustees look not only to intelligent individuals, but to the agricultural associations in different parts of the State, to some, or most of which they are already indebted; and to one for the first document in this pamphlet.

In the name of the Society, the Trustees repeat their request to these associations for original communications, and their assurances of ability and readiness to publish for their and the general benefit whatever novel, interesting or seasonable matter, they shall put at their disposal.

The observations of Mr. Winthrop are likewise inserted, and every reader will probably join in the wish that similar tables had been continued to the present day.

*Observations of the Progress of Vegetation, made at Cambridge, from 1793 to 1796, inclusive; by JAMES WINTHROP, Esq., F. A. A. and F. H. S. and of the Agricultural Society.*

TABLE I. Time of Blossoming.

<i>Plant.</i>	1793	1794	1795	1796
Asparagus,	15 May	15 May	6 June	
Apple,	29 April	29 April	10 May	4 May
Apricot,	16 April			
Currant,	20 April	23 April	5 May	24 April
Cherry,	17 April	23 April	6 May	27 April
Elm,	27 March	7 April	4 April	8 April
Gooseberry,	12 April	23 April	1 May	23 April
Grape,	16 June	22 June	25 June	24 June
Honeysuckle,	15 May	15 May	27 May	21 May
Lilae,	7 May	4 May	15 May	13 May
Lime,	27 June		29 June	28 June
Lily,	19 June		29 June	28 June
Nectarine,	15 April			29 April
Horse Chestnut,		15 May	16 May	
Peach,	20 April	23 April	27 April	23 April
Pear,		29 April	10 May	
Plum,		19 April	7 May	30 April
Quince,	16 April	11 May	25 May	18 May
Tulip,	11 May	5 May	10 May	12 May
Raspberry,	22 May		1 June	1 June
Pink,			1 July	24 June
Willow,	16 April	19 April	27 April	22 April
Black Poplar,		17 April		21 April
Syringa,	22 May	27 May	4 June	30 May
Dama. Rose,	7 June		14 June	15 June
White Rose,	23 May	20 May	10 June,	1 June
Oak,	11 April	18 April	24 April	22 April
Birch,	29 April			18 April
Maple,		18 April		17 May
Button,		27 April		
Ash,			7 May	
Snowball,			24 April	
			15 May	15 May

By the blossoming of the Buttonwood, is intended only the opening of the bud, so as to discover the ball; for the tree, in reality, does not discover its blossom to an observer.

TABLE II. Of first open Leaves.

<i>Plant.</i>	1793	1794	1795	1796
Apple, Apricot, Currant, Cherry, Elm,	9 April  25 March  6 May	18 April 28 April 24 March 19 April 1 May	24 April 7 May 24 April  8 May	22 April 23 April 10 April 27 April 6 May
Gooseberry, Grape, Honeysuckle, Lilac, Lomb. Poplar,	25 March 9 May 28 Feb. 28 Feb. 29 April	3 April 3 May 23 March January 21 April	17 April 10 May  17 April 7 May	10 April 29 April 8 April 10 April 29 April
Peach, Plum, Blk. Poplar, Quince, Rose,	 13 April 12 April 11 April beg. April	21 April 19 April 19 April 19 April January	 2 May 7 May  April	27 April 23 April 23 April 1 May March
Raspberry, Strawberry, Syringa, Willow, Pink,	25 March beg. March 7 April 4 April beg. April	24 March January 3 April 18 April January	 April 17 April 17 April	8 April March 16 April 16 April March
Lily, Snowball, Olnut, Oak,	11 April 6 April 20 April	January 21 April 22 April 1 May	1 April 25 April  11 May	March 23 April 3 May
Mulberry, Wh. Mulberry, Asparagus, Lime,	 12 April 24 April 1 May	5 May 21 April 25 April 2 May	 10 May  9 May	 4 May 23 April 5 May
Button, Horse Chesnut, Tulip, Althea,	6 May	1 May 21 April 1 April	7 May 27 April April	1 May 1 May 1 April 22 May

Several of these plants put out their leaves so early as to lose them again by freezing. Such plants seem rather to be nourished than injured by hoar frost, and unless the freezing be very severe and followed by sudden heat, their leaves do not appear to suffer materially from the freezing degree of cold. They will for a little while bear a degree of cold several degrees below freezing.

TABLE III. Containing several ripe fruits and esculent plants, according to the first specimens in each year, as I met with them in my own garden or elsewhere.

<i>Fruit, &amp;c.</i>	1793	1794	1795	1796
Asparagus,	15 April	20 April	26 April	24 April
Strawberries,	27 May	27 May	11 June	3 June
Peas,	28 May			12 June
Cherries,	29 May		June	
String-beans,	15 June			27 June
Raspberry,	26 June		3 July	
Turnips,	20 June			
Apricots,	1 August	24 July		6 Septem.
Nectarine,				6 Septem.
Peaches,	15 August	20 August		
Plums,	August	August	29 August	3 Septem.
Melons,	August	15 August	20 August	27 August
Grapes,	30 August	28 August	12 Septem.	17 August
Gooseberries,		16 July	July	July
Currants, red,		25 June	29 June	26 June
white,		25 June	25 June	28 June
black,		16 July	August	

If these minutes had been originally made with a view to publication, I would have taken care to fill the blanks. They are, however, more numerous, and placed in a more compact form, than any others that I have seen, and I hope they will be the means of stimulating some of our associates to bring forward their observations, that by a comparison we may endeavor to bring this branch of knowledge to perfection.

The preceding observations chiefly relate to those plants which have a perennial root. They may be of use to determine when the ground is warm enough to receive the seeds of annual plants. With respect to these, it is of importance that we should know at the time of planting, when we may reasonably expect them to be in eating. Unless we are careful to multiply and vary our experiments, and to publish all of them that come to our knowledge, we can never hope for a regular succession of fresh vegetables, which is the perfection of a garden. It is to contribute toward so desirable an end, that the following experiments are communicated, and I hope, by the United endeavors of our Society, with other institutions of the same kind, that we shall have agriculture as much a subject of calculation as astronomy is at present.

TABLE of the growth of Indian Corn, and the number of days from planting for each period of growth.

<i>Planted.</i>	<i>Sprouted.</i>	<i>Tasselled.</i>	<i>Silked.</i>	<i>Eatab. green.</i>	<i>Season.</i>
1792 May 4	12 May 8	30 June 57	14 July 71	1 Aug. 89	<i>very dry.</i>
1793 April 23	6 May 13	26 June 64	10 July 78		
26	8 May 12	19 June 54	5 July 70	23 July 88	
27	8 May 11	21 June 55	5 July 69		
July 15	22 July 7	24 Aug. 40	15 Sept. 61	10 Oct. 86	<i>excessive dry.</i>
1794 May 3	15 May 12	27 June 55	12 July 70	29 July 87	
June 21	28 June 7	28 July 37	13 Aug. 53	1 Sept. 72	
1796 April 27	15 May 18	10 July 74	24 July 88		<i>not very dry.</i>

The principal circumstance which caused any difference of growth, appears to be the time of planting. What was planted about the beginning of May, appears to have required from 86 to 89 days to be fit for eating. What was planted earlier, took longer time to come forward, and did not ripen at so early a date as that at the beginning of May. That planted in July lost in the fall the time it gained in summer, and furnished green corn for the beginning of October. The specimen planted about the middle of June, kept its growth the whole summer, and became fit for eating in 72 days. Not much appears to depend on the character of the season.

*Summary of observations made on the leafing and flowering of trees, near Boston, and on the first specimens of ripe fruit and esculent vegetables, from 1797 to 1803, inclusive, by JAMES WINTHROP.*

<i>Tree or Plant.</i>	<i>First Leaves.</i>	<i>First open Flowers.</i>
Almond,		13 April
Althea,	22 May to 5 June	
Apple,	28 April to 5 May	28 April to 15 May
Apricot,	23 to 29 April	20 April to 4 May
Asparagus,		
Ash,		26 April
Birch,		19 April
Button,		7 May
Cherry,	19 April to 4 May	25 to 29 April
Currant,	31 March to 3 April	28 April to 14 May
Elm,	4 to 11 May	31 March to 18 April
Fig,	23 May	
Filbert,	2 to 4 May	
Gooseberry,	31 March to 3 April	27 April to 7 May
Grape,	3 to 22 May	20 June to 2 July

*Summary of observations,—continued.*

<i>Tree or Plant.</i>	<i>First Leaves.</i>	<i>First open Flowers.</i>
Honeysuckle, Horse Chestnut, Larch, Lilac, Lime,	21 March to 8 April 1 to 10 May 1 May 2 to 4 April 3 to 8 May	21 May to 8 June 14 to 24 May 10 to 16 May 21 to 30 June
Lily, Locust, Maple, Mulberry blk. Mulberry wh.	31 March to 5 April  5 May 4 to 18 May	28 June to 6 July 12 June 20 April to 2 May 30 May 26 June
Nectarine, Oak, Oilnut, Passion Flower, Peach,	30 April 10 to 15 May 3 to 8 May 10 to 30 April	20 April to 14 May 16 to 23 May June 7 July 20 April to 13 May
Pear, Pink, Plum, Poplar, Quince,	March 1 to 8 May 2 to 10 May 1 to 15 May	4 May 29 June to 8 July 25 April to 14 May 20 to 24 April 21 to 31 May
Raspberry, Rose, damask, Senna, Snowball, Strawberry,	3 to 8 April 12 April to 1 May 15 May 25 April to 4 May March	28 May to 2 June 9 to 18 June 21 June 15 May to 1 June 27 April to 17 May
Syringa, Tulip, Walnut, Willow,	3 to 19 April 27 March 3 to 16 May 4 to 15 April	28 May to 8 June 14 to 21 May 23 April to 8 May

*First Specimens of Fruits and Esculent Vegetables, from  
1797 to 1803 inclusive.*

Asparagus, Almonds, Apples, Apricots, Cherries, Currants, Gooseberries, Grapes,	21 to 30 April 18 Sept. August 12 to 13 Aug. 29 May to 25 to 29 June 16 July 22 Aug. to 12 Sept.	Melons, Nectarines, Peaches, Plums, Raspberry, Strawberry, String Beans, Peas,	15 to 27 August 6 Sept. to 15 Aug. to 6 Sept. 26 Aug. to 3 Sept. 4 to 9 July 27 May to 3 June 15 June to 3 July 28 May to 12 June
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A. D., 1804.

In the Board of Officers, Samuel W. Pomeroy, Esq., was elected a Trustee in the place of Rev. Dr. Kirkland, who became Corresponding Secretary in the place of Rev. Dr. Parker.

This year was especially marked by the permanent establishment of the Professorship of Natural History, at Cambridge. A special meeting of the Society was called on the 6th of March, for the purpose of considering the articles to be proposed by the Proprietors of the Botanic Fund, when the rules for the foundation of the Professorship, and the principles by which it should be regulated and conducted, were agreed upon. The Trustees were constituted the Visitors of the Professorship. The original design was to establish a Professorship of Botany and Entomology. This was changed to the one finally adopted, by a formal vote of the Trustees, who voted to accept the trust reposed in them by the rules of the foundation.

Twenty copies of the late publications of the Society were voted to be sent to the Rev. Dr. Wheelock, President of Dartmouth College, and twenty copies to Dr. Nathan Smith, of Windsor, in the State of Vermont,—to be distributed by them according to their discretion.

A communication from John Lucas, Esq., respecting an experiment he made upon twenty-four acres of meadow land in Cambridge, by spreading a certain quantity of gravel upon the same with a mixture of compost manure, and mentioning the advantage of it, was read and referred to the Committee on Publications.

A general rule was adopted for distributing copies of the agricultural publications of the Society to all the agricultural societies in the United States.

A committee was appointed to call up in the Senate the petition for the promotion of the Botanical Institution, and to obtain such aid from Government as they shall be pleased to grant.

Dr. Aaron Dexter communicated a letter from Rev. Manasseh Cutler, a member of Congress, recommending the purchase of Michaux on the American Oaks, Michaux's *Flora Boreali Ame-*

ricana, and Willdennois' new edition of the Species Plantarum, which were accordingly ordered to be purchased.

Mr. Daniel Adams, of Framingham, having submitted a plan for a periodical publication on the subject of agriculture, it was taken into consideration, and it was voted: That it does not consist with the rules invariably prescribed by this Society to lend its official sanction or to become responsible for any publication not under its control, or make any private enterprise of this nature the vehicle of its communications to the public; but should the work intended by Mr. Adams appear on perusal to promote the great purposes of agriculture, the Trustees individually, and the Society at large, will feel it their duty to encourage its circulation by all the means in their power.

A committee was appointed to consider and report the best means to be adopted for availing the Society of the benefits of a Resolve of the General Court, passed March, 1805, granting to the Society a township of land.

At the meeting of the Trustees on the 13th of April, 1805, the Trustees entered upon the duties prescribed in the foundation of a Professorship of Natural History.

At the meeting in May, Joseph Russell and Dr. Dexter were appointed a committee to offer for sale the township of land granted by the State, by advertising for written proposals to purchase the same, in one or more of the public newspapers printed in Boston. This Committee reported that they had received an offer of sixty-two and half cents per acre, which was accepted by the Trustees, provided the purchasers comply with the conditions expressed in a written memorandum covering the offer.

#### A. D., 1805.

Hon. John Adams, (Ex-President of the United States) was chosen President, in the place of Gov. Strong. Dudley Atkins<sup>pt.</sup> Tyng and Josiah Quincy took the places of George Cabot and<sup>pt.</sup> Martin Brimmer.<sup>ne</sup>

The Committee appointed for the sale of the township of land granted by the Legislature for a Professorship of Natural His-<sup>aly</sup>  
<sup>June</sup>

tory, reported a letter of instructions to Lothrop Lewis, and a reply from him in relation to surveying said grant, in which he says that the lateness of the season and his avocations were such as to prevent his undertaking it until spring.

A letter from Hon. Timothy Pickering, on the culture of potatoes from the sprouts, and one from Mr. William Bartlett, of Newburyport, upon Egyptian millet, were read and considered. Letters were likewise received from Benjamin Vaughan, upon the cultivation of the potato in England by the Millwood family, also an account of a cottager's cultivation in Shropshire; from Nathaniel Adams, upon the cultivation of a new species of grain, called Jerusalem wheat; from Paul Dodge, of Newcastle, (Maine) enclosing a description of a cider-press; from Justin Ely, on the culture of "the long crooked-necked warty squash;" from Dr. Dexter, one "on the food of plants." These were all considered, and in some form brought before the public.

The sum of five hundred dollars was paid to the fund for the Professorship of Natural History.

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### A. D., 1806.

Rev. William Emerson was this year elected one of the Trustees, in the place of Hon. Christopher Gore; and Dudley Atkins Tyng was made Secretary, in the place of John Avery, jr., deceased. John Lowell, Esq. was chosen Corresponding Secretary, in the place of Rev. Dr. Kirkland, who continued in the Board of Trustees.

A committee was appointed at the semi-annual meeting of the Society to consider the expediency of offering a premium for the best system of kitchen economy and cookery adapted to the use and habits of the yeomanry of Massachusetts.

At the meeting of the Trustees held at Mr. Theodore Lyman's, in Waltham, Mr. Winthrop presented to the Society, from Hon. James Bowdoin, Minister of the United States to the Court of Madrid, sundry books and pamphlets on agriculture; also specimens of earth brought from the mountains of Limoye,

in France, of which the Sevres and Angouleme porcelain is made. These specimens were committed to Dr. Dexter.

A specimen of Jerusalem wheat, from Prof. Peck, was committed to Mr. Pomeroy.

A communication was read from Rev. Dr. McClure, of Windsor, Conn., on the use of pomace as a manure, and on clearing the tops of hills.

### A. D., 1807.

Hon. Joseph Russell retired this year from the office of Vice-President, and Theodore Lyman was elected in his place. Eben Preble, Esq., was elected one of the Trustees.

At the semi-annual meeting of the Society, held in February, Thomas L. Winthrop, Theodore Lyman, and Samuel Parkman were appointed a committee to present a petition to the Legislature, for the grant of half a township of land, in aid of the funds of the Massachusetts Professorship of Natural History.

Messrs. Pomeroy, Lowell, and Emerson, were chosen the Committee on Publications.

A letter from Hon. Josiah Quincy, accompanying a pamphlet on the "management of thorn hedges," by Mr. Main; a letter from Mr. Thomas Bremer, accompanied with a present of Patagonian wheat; an Address of the Kennebec Agricultural Society to the farmers on the river Kennebec, on the means of increasing food for cattle; a letter from Col. David Humphries, describing the progress he had made in propagating the Merino breed of sheep, and another accompanied with a small parcel of barley; also a letter from Hon. Dwight Foster, enclosing sundry communications to the Brookfield Agricultural Society; were read and considered at the several meetings of the Trustees during the year.

The Trustees published another volume of transactions during this year, "under the patronage of government;" as appears by the following brief preface.

## PREFACE.

Under the patronage of Government the Trustees of the Massachusetts Society for promoting Agriculture, and the Board of Visitors of the Massachusetts Professorship of Natural History, offer to the Public the tenth number of their Papers.

The answers to queries, sometime since proposed to practical Farmers in the Commonwealth, of which we shall hereafter more particularly speak, form the principal portion of the original matter contained in this number.

The high reputation of the *Farmer's Magazine*, periodically published in *Edinburgh*, and the probability that few agriculturalists in this country have an opportunity of reading it, together with the want of domestic communications, have induced the Trustees to make copious extracts from that valuable work.

"Hints regarding Cattle," will be deemed interesting by the intelligent Farmer, who cannot but have observed the general inattention to the subject on which they are suggested.

The papers on "The management of dung," and "the culture of potatoes," although, perhaps, alluding to practices not common in New England, are well worth a preservation in these pages.

Extracts from the celebrated FOURCROY, "On the philosophy of vegetation," translated and abridged for the *Farmer's Magazine*, are suited to awaken the attention of husbandmen to different soils, and their particular adaptation to different vegetables.

The letter "On the benefit which farmers would derive from the study of Botany," is not so intelligible as it would be, if the publications to which it refers were annexed; but it may serve to excite a curiosity in those who have leisure to obtain an acquaintance with this subject.

The answers to queries in a digested form, occupy thirty-seven pages of the volume, and are replete with interest; and if it is found that it will not extend this work too much, the entire article will be added at the close of the volume.

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A. D., 1808.

The Board of Officers and Trustees continued the same as the last year.

At the meeting of the Trustees on the 25th of June, it was voted that the Secretary of the Commonwealth be requested to make and to execute to Dudley A. Tyng, Esq., the conveyance of a township of land authorized by the General Court in 1805.

Messrs. Lowell, Dexter and Winthrop were authorised to correspond with the persons who heretofore contracted with this Board for the said township, and to make any new contract, if needful, with them, or to rescind the same, at their discretion ; in such an event to sell it for cash, credit, or exchange, as they may think best, at their discretion.

A communication on the raising of potatoes, from Caleb Stark ; and one from Elkanah Watson, with enclosures, asking aid of the Board for printing the same, were received. The Corresponding Secretary was requested to inform the latter that if upon examination of his manuscripts the Trustees approve of the same, they will print them free of expense to him, and will forward to him such a number of copies as he may wish to distribute.

There was presented to the Society this year, by Sir John Sinclair, "A plan of the reprinted reports of the Board of Agriculture in Scotland ;" also, the first volume of the "Memoirs of the Agricultural Society of Philadelphia" was received from that society.

A list of premiums was reported to be published in the next volume of the Transactions of the Society. The aggregate amount of the premiums was more than one thousand dollars. One of them was "To the person who shall import into this Commonwealth, directly from the Kingdom of Spain, the first five rams of the Merino breed, the sum of fifty dollars, each, and for the first ten ewes, the sum of twenty-five dollars each.

The other premiums related to the destruction of Canker-worms, Slugs, &c. ; the raising of wool and mutton ; the best method of raising water for irrigation ; the best *Hortus Siccus* exhibiting the different kinds of grasses and their respective qualities ; the best plantation of oaks and other hard-wood trees ; the best analysis of soils ; best method of curing clover hay ; best experiment of ploughing in green crops for manure ; best essay on the application and effects of manures, &c.

## A. D., 1809.

Theodore Lyman retired from the Board and S. W. Pomeroy was elected Vice-President in his stead. Rev. J. T. Kirkland became Recording Secretary in the place of John Lowell, and Peter C. Brooks, and Samuel G. Perkins were added to the Board of Trustees.

A letter from Col. Robert Gardner on raising coffee in this State was received and referred to the Publishing Committee.

A committee was appointed to take into consideration the state of the finances, and report on the expediency of devoting any part thereof to the purchase of books, models, &c., for the use of the Society. Subsequently an appropriation of five hundred dollars was made for this purpose. It was also voted that the books procured for distribution should be placed under the care of such *associations for improving the husbandry of the country*, as now exist, or hereafter may be formed in this Commonwealth.\*

Papers from Mr. Lowell, on the early maturation of grapes; from R. B. Livingston, on the advantages of rearing Merino sheep; from Mr. Mansfield, with remarks on agriculture; a memoir on the use of Palmetto plank for sheathing; were laid before the Trustees.

The Committee on Publications was requested to publish, in the newspapers, the best short account to be obtained of the peculiar marks of the Merino sheep.

Capt. William Bartlett received a premium of fifty dollars for the importation of a Merino ram.

The volume of Transactions, which was issued this year by the Trustees, appeared under the title of the "Georgick Papers for 1809," with the following motto:

"Without encouragement of agriculture, and thereby increas-

\* It may be well to remark that the Library of the Society has lately been placed under the charge of the Secretary of the Board of Agriculture, at the State House; and as many valuable books belonging to the Society have been lost under the old system of management, it is hoped by the Trustees, that if any of these should be found and identified, they will be returned to Mr. Flint, the Secretary of the State Board of Agriculture.

ing the number of its people, any country, however blessed by nature, must continue poor."—SWIFT.

The following Preface, together with much of the original matter, was evidently written by Hon. John Lowell.

#### PREFACE.

ALTHOUGH in their papers for 1809 the Trustees of the Massachusetts Society for promoting Agriculture are unable to number many original communications, they, however, hope that their selections will be found adapted to the design of the Institution.

The intimate connection subsisting between chemical knowledge and improvements in husbandry is well known to intelligent farmers, and is an obvious reason for devoting many of the following pages to an extract on the nature of vegetables. By knowing the operation of different substances upon each other, we learn what is the proper food of plants, and, of course, how most successfully to cherish their growth.

The art of improving and managing breeds of cattle and sheep begins to exercise the attention of wealthy and patriotick landholders, who thus give promise of serving at once the agriculture and manufactures of the nation. In this view, Lord Somerville's memoir to the Bath Society, and the elegant letters of Col. Humphreys, on the habits and excellence of the Merino Sheep, will be no less interesting to the American Publick, than they are creditable to their authors. The disposition of the Trustees, also, to encourage the propagation of the Merinos in this country will be seen by the premiums which they offer to importers.

The naturalist will be amused, perhaps instructed, by the history of the Curculio and of the Mole. The tract on the latter is a translation from an ingenious French writer; and though the depredations of this animal are not the subject of general complaint in this part of the country, yet it is elsewhere troublesome and destructive.

The badness of the butter, usually marketed in this vicinity, frequently excites disgust and murmurs. In the hope of doing somewhat towards remedying the evil, the Trustees have this year republished a paper, which they published in 1793, containing Dr. Anderson's aphorisms on the management of a dairy.

The extract from Mawe is made for the benefit of those who are destitute of the work itself, and of the still more useful treatise on the same subject by M'Mahon: but the American gardener must recollect, that the difference between the seasons here and in England is considerable.

The valuable communication from Kennebec, and several miscellaneous articles, entitle the gentlemen who furnish them to the thanks of the publick.

The Trustees, in superintending the concerns of the Society, have no objects in view other than those which should inspire a deep and common interest, the immediate improvement of husbandry, the relative advancement of the arts, and the ultimate prosperity of the



country. As it was the original design of their Association, so it is still their desire and purpose to encourage by suitable premiums an attention to agricultural pursuits; to throw into the publick stock the knowledge of such useful improvements as they may severally possess; and to procure models of approved machines to be examined and imitated. It is evident, however, that these objects cannot be completely attained without farther legislative aid, than they already enjoy, and a spirit of more liberal inquiry and communication among practical farmers, than has yet been manifested. On the last article, particularly, therefore, they beg leave most earnestly to repeat a request, which they formerly made, that farmers in the interior and distant parts of the Commonwealth would favor them with original communications. It is by no means necessary that a man, profitably to write for this work, should be intimately acquainted with the structure and character of plants, or with the modes of farming in foreign countries, or with the ornaments of style, or with even the rules of grammar. Plain facts in plain language; journals of labor performed, and of the time and manner of sowing the same seeds in different grounds; and hints on probable improvements in the tillage of old farms, and the subduing of new ones—will ever be acceptable to the Trustees, who, to the best of their power, will methodize such facts and observations, and publish them for the general benefit.

Boston, MAY 24, 1809.

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## A. D., 1810.

Dr. Warren and Rev. William Emerson having resigned, they were succeeded by John Prince and Rev. J. S. Buckminster.

The fourth article of the Constitution was altered at the annual meeting, making nine members to constitute a quorum at the semi-annual meeting of the same year. A quorum not being present, no business was transacted. Since that period the semi-annual meeting has been discontinued, except upon the occasion of cattle shows.

The Committee appointed for the sale of the two townships of land granted by the Legislature, in aid of the Massachusetts Professorship of Natural History, reported:—

“Having caused the said lands to be duly advertised in the *Columbian Centinel*, for more than six weeks before the time of sale, and also in two other papers printed in Boston, during the

week preceding the time of sale, and having selected, as the time of disposing of the same at auction, the 5th day of June instant, when the two branches of the Legislature were in session, and gentlemen of all parts of the State were assembled in Boston, and having, for the sake of giving greater publicity to said sale, adjourned the auction, from the 5th day of June to the 12th of the same month, at which time the same Legislature was in session, they caused the same to be put up at auction, when they were obliged to bid in, for the account of the Professorship, the *located township*, no real purchaser appearing to pay any price whatever. They then set up for sale the *unlocated township*, and the same was purchased by Abiel Wood, Jr., Esq., of Wiscasset, at the rate of thirty-two cents per acre, which amounted, for the township, to six thousand, nine hundred and sixty-nine dollars. The Committee, after due inquiry, took his note, payable in five years, with interest yearly, and gave him a contract for a deed, when the same shall have been located, he giving a mortgage of the premises to secure his note.

“The Committee convinced from inquiry, as well as by the aforesaid ample trial of said property at auction, that they had ascertained the value thereof, did, thereupon sell the *located township* to Dr. Aaron Dexter, and Eben Preble, Esq., for the sum of seven thousand dollars, they having frequently and very honorably expressed their readiness to give up said purchase, in case any member of the Board shall think said sale disadvantageous to the public.”

The report was immediately accepted, approved and recorded, and it was voted that Dudley A. Tyng, in whom the title was invested, be authorized and requested to convey the same, in fee simple, to Messrs Dexter and Preble, upon the purchase money being paid, or secured to the Treasurer of Harvard College.

It was also voted that the purchaser be requested to call the township *Linnaeus*.

F. C. Lowell, Secretary of the Subscribers to the Funds of said Professorship, laid before the Board an exemplification of the foundation, rules and principles of the same, engraved on parchment, under the signature of the Chairman and Secretary.

A Committee on the Canada thistle was appointed.

Dr. Dexter was authorized to send to England for a newly invented plough, making it a condition to his correspondent that the plough has been found to answer a useful purpose, and that the invention is an improvement.

Mr. Pomeroy was requested to have printed instead of the pamphlet commonly published annually by the Trustees, a thousand copies of Elliot on Husbandry, and that he be requested to insert such notes as he may think proper, and omit any part of the work he may deem expedient.

The premium of two hundred and fifty dollars was awarded to Cornelius Coolidge, for the first ten ewes imported from Spain.

Sundry parcels of seeds were presented for distribution, by Daniel Parker, Esq., of Paris.

Three hundred dollars were contributed towards the encouragement and support of the Botanic Garden at Cambridge.

A letter was communicated from an anonymous source, concerning a more humane method of killing cattle.

Another volume was published this year by the Trustees, in which much of the space was devoted to the advantages of increasing and improving our flocks of sheep.

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## A. D., 1811.

Richard Sullivan, Esq., was chosen Recording Secretary, in the place of Rev. Dr. Kirkland, and John Prince, Esq., in the place of Rev. Mr. Buckminster, as Trustee.

A copy of a work entitled "Advice to Shepherds, on the Management and Care of Sheep," translated from the French of M. Daubenton, by a Gentleman of Boston, was presented by Mr. Belcher, the Publisher, and committed to Messrs Winthrop, Parsons, and Dexter, to examine it and report upon the expediency of recommending it to the public. The Committee subsequently gave it a full recommendation.\*

\* The translator of this work was the Hon. James Bowdoin, one of the first Board of Trustees, Minister to Spain, and son of the Governor, who imported many Merino Sheep, and kept large flocks at Nasahwn Island. The original work is an authority in France, at the present day.

The Recording Secretary was ordered to distribute this year's publication, as follows: To the Berkshire Agricultural Society, thirty copies; to the Western Society of Middlesex Husbandmen, thirty copies; to the Brookfield Association, twelve copies; to Benjamin Vaughan, twenty copies; and to each of the Trustees, for further distribution, twelve copies.

One hundred dollars was given to Professor Peck, to be expended in the purchase of trees and plants, for the Botanic Garden, at his direction.

The sum of two hundred dollars was also voted this year, towards the general support of the Botanic Garden; "it being the opinion of the Board that the support of that institution is important to the purposes of agriculture."

Communications on the subject of *Fiorin*\* grass, by John Winthrop, and from Elkanah Watson, and others, on various subjects connected with agriculture, were received, and duly considered.

This year the Trustees commenced a new series of their publications, and in the preface they say, "Should the stock of communications put it in their power to issue them hereafter quarterly, they shall execute the duty which will devolve on them, with great pleasure."

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## A. D., 1812.

Hon. John Adams, having declined serving again as President, Dr. Aaron Dexter was elected in his place. Samuel Pomeroy was elected first Vice-President; Thomas L. Winthrop second Vice-President, and John Prince Treasurer, and Josiah Quincy took his place in the Board of Trustees.

\* *Fiorin* (*agustis stolonifera*) is only a variety of the white-top, or *agustis alba*, which gained great notoriety in England and Ireland—volumes having been written in its praise, while it received the execrations of those who found it troublesome to eradicate it, on account of its creeping and stoloniferous roots. C. L. Flint's Report for 1857, p. 28. For a full account, see Mr. Winthrop's Letter, Mass. Agricultural Journal, vol. 3, p. 32.

Justin Ely, of West Springfield, presented to the Society at the annual meeting a quantity of seed from the oat grass,\* with a letter upon the subject.

A circular having been issued the year previous, recommending the formation of societies in the towns for the promotion of agriculture, the Secretary was ordered to furnish a copy of the publications of the Society to each Association that should be thus instituted.

The model of a double plough was ordered to be procured, the original being in the possession of Benjamin Vaughan.

M. Tessiers' work on Merino sheep was referred to the Publishing Committee,—a review of which was afterwards published. See vol. 3 of the Transactions.

Several extracts from English publications on the culture of carrots were read and referred to the Publishing Committee, and afterwards published by the Society.

Mr. Whitlow made known his discovery of a new species of *urtica*, which he recommended as a valuable substitute for flax ; a full account appeared in the printed Transactions.

The Corresponding Secretary communicated a letter from Elkanah Watson and others, praying pecuniary assistance in aid of the Berkshire Agricultural Society. He was requested to return for answer to said letter, "That this Board does not conceive itself authorised by the charter of the Society, to favor, by grants of money, any one in particular of the several respectable agricultural societies within the Commonwealth ; and that, therefore, however much it may wish for the prosperity of the Berkshire Society, it cannot make any appropriation out of the funds to the exclusive benefit of one section of the country. That this Board will cheerfully co-operate in any measures, which will promote the general interests of agriculture, at the same time that they favor the objects of the Berkshire Society, and will immediately take into consideration the expediency of offering premiums for the same improvements for which the Berkshire Society have offered premiums."

Subsequently two premiums were offered, at the suggestion of the Berkshire Society, of one hundred dollars each, for a

\* See Mass. Agricultural Journal, for Nov. 1813, p. 38.

specimen of *madder* of good quality, the largest amount grown by any person in the Commonwealth, within three years, not less than one thousand pounds; and the same with regard to *woad*, not less than five hundred pounds grown within two years.

A communication from Mr. Lowell, the Corresponding Secretary, was read, "On the present low state of agriculture in this Commonwealth, and the general neglect of the means of improvement," and recommending that measures be adopted by the Board, to awaken, if possible, a livelier interest in this important subject. The letter was referred to a committee, which at a subsequent meeting made a report, and after some amendments, it was accepted; and it was also voted:

"That one thousand copies of the letter reported by the Committee, addressed to farmers, be printed; and that a copy be forwarded by the Recording Secretary to the town clerk in every town in the Commonwealth, with a request that he would cause the same to be read to the inhabitants when assembled in town meeting, and that he would, as soon as convenient, report to the Recording Secretary, any measures taken by them in conformity with the wishes of the Trustees.

"That the important queries suggested by the Corresponding Secretary, together with those heretofore printed by the Board, be printed, and a copy sent to each town, accompanying the letter addressed to farmers.

"That the clergy of the respective inland towns be admitted honorary members of the Society, and that the Corresponding Secretary be requested to address a letter to them, on the importance of attention on the part of the people to the means of improvement in husbandry, which are within their reach, and request the exertion of their influence in aid of the measures of the Board."\*

A committee was appointed to confer with Dr. Gorham,† respecting the analysis of the various soils and manures, and consider the expediency of employing him for that purpose, and

\* For the queries see the 3d vol. of the Mass. Agricultural Repository, p. 55.

† A scientific and distinguished physician and chemist of Boston.

also to collect and digest, for occasional publication, what has hitherto been printed on this subject.\*

The library of the Society was this year removed to the Boston Athenæum, and placed under the charge of the librarian of that institution.

Much activity was manifested by the Trustees this year. Those members who had farms under their immediate care, were requested to communicate their experiments, and any interesting facts which come under their notice, with a view to publication. The Board subscribed for all the foreign and domestic journals of agriculture, and the information extracted from them was disseminated through the pages of the Agricultural Repository. Much of this was due to the active and energetic character of the Recording Secretary, Hon. John Lowell.

One hundred dollars was given for the purchase of trees and shrubs for the Botanic Garden, and fifty dollars for the purchase of roots and seeds, to be raised there, for sale and distribution.

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### A. D., 1813.

No change was made this year, in the Board of Officers and Trustees.

The Hon. Josiah Quincy read a communication giving a detailed account of his method of cultivating the "American Hedge Thorn," the progress of its growth since 1808, when first planted, and the expense attending it. It was referred to the Publishing Committee.†

Gorham Parsons presented a specimen of Derry Wheat, (so called) raised by him at Brighton, with a description of the same.

A letter from Mr. Moses P. Gray, giving an account of the making of sugar from the sap of the butternut tree, with a sample of the sugar, was read.

\* The report made by him is in the 3d vol. of the Repository, p. 83.

† This hedge is still alive and vigorous in Quincy, at the residence of its public-spirited planter.

Various other subjects, such as the method of grafting trees by approach ; on an improved method of propagating the white thorn by cuttings from the root ; on the cultivation of wild oat grass, florin, and other grasses ; on the cultivation of madder ; on the rotation of crops ; on refining cider ; on the advantage of cutting the tops of carrots while growing ; an account of a new churn ; and on the merits of several machines for raising water, received the attention of the Trustees.

Six hundred dollars was loaned by the Society for the use of the Botanic Garden.

A Committee was appointed to apply to the legislature during its present session, for an allowance in addition to the present yearly grant, for defraying the expense of printing the Society's publications, and also for pecuniary aid to the Massachusetts Professorship of Natural History. An act was obtained to allow them their accounts that shall be well vouched, for any sums paid by them for printing and circulating their publications on agriculture only, for the raising of seeds and plants, or the expense of any experiments made by them with a view to promote agricultural knowledge, provided that the same shall not in any one year exceed one thousand dollars.

In consequence of this liberal appropriation by the State, the Corresponding Secretary prepared a report, making such a division between the printing and the public garden as in his opinion would best advance the cause of agriculture, allowing four hundred dollars to the former and six hundred dollars to the latter. Two principal objects were to be aimed at in the second appropriation, viz. : 1st, to introduce into cultivation as many native plants as possible ; 2d, to devote an acre of land to raising seeds of culinary vegetables, and also "to have specimens of *florin* grass, oat grass, woad, and any other plants rare and curious."

A committee of five, consisting of Messrs. Lowell, Preble, Perkins, Prince, and Parsons, were appointed to take charge of the garden. It would have been difficult to find five other persons in the State equally competent for the task.

A considerable number of answers to the queries which had been circulated, were received during this and the previous year, which were digested and published by the Trustees.



The first number of the volume of transactions for this year, appeared under the new title of the “Massachusetts Agricultural Journal,” with the following preface:

THE Trustees of the Massachusetts Society for promoting Agriculture, offer to the public the first number of a new series of their publications. Should the stock of communications put it in their power to issue them hereafter quarterly, they shall execute the duty which will devolve on them, with great pleasure.

The various topics of Agriculture have already been treated by able writers, and frequent attempts made to rouse the spirit of careless and improvident cultivators, by eloquent appeals to their interest, patriotism, and philanthropy. But the kind of book from which the farmer will, without doubt, derive the greatest advantage and the instruction of which he stands most in need, is, that which makes known to him the practice and experience of the most active and intelligent men, inhabiting the same district of country with himself, and not dissimilarly circumstanced as respects climate, soil, and the general face of the country.

There are maxims in Agriculture of universal application, and *hints* derived from a foreign country sometimes lead to important improvements, but the attention is more deeply engaged, and the memory more strongly impressed by what passes in our own neighbourhood, besides, narratives of improvements in distant countries are commonly viewed with distrust, and disregarded often as mere innovations. It is far otherwise with what takes place in the society, town, or county, or State to which we belong; the accounts can either be verified by our own observation, or are admitted without question as true, from the known credibility of those from whom they are derived.

How far modes of culture practised in other countries are suitable to our own, is matter of inquiry for gentlemen of leisure and intelligence; their testimony will be heard with interest by the farmers at large, and their recommendations adopted with thankfulness and followed as the sure road to wealth.

From these remarks it will appear to be the object of the Trustees, in their future publications, as in their former, to open a channel of communication between the several Agricultural Societies in this Commonwealth, and between the individual farmers of the same county and of the same town, to promote as far as it may be in their power, a frequent and familiar interchange of practical hints—to carry the knowledge of new facts from one farm to another, and to record for the benefit of the present generation and that of our posterity, the course of husbandry of the good farmers of Massachusetts.

A work of this kind, lays no claim to literary distinction. It will be open to the communications of all farmers. Their inquiries will receive respectful attention; and any doubts or difficulties will be immediately considered and answered, or published for the consideration of the speculative.

The simple, plain, and familiar style used in common life, is found often to convey as precise ideas on subjects of business as the more refined language of the scholar. It is hoped, therefore, that our intelligent husbandmen, who have not leisure to attend to the arts of composition, will not be deterred by too great delicacy from communicating for publication, the results of their experience. They should reflect, that it will operate to induce others to do likewise. And the mutual encouragement afforded by example, will thus be the means of bringing together a mass of information, highly interesting and profitable to all. Great expectations are formed from the numerous town societies, instituted recently for the promotion of agriculture. The promptitude with which they have been organized, and the zeal they have manifested is highly flattering to the object. All such societies will be entitled, of course, to a copy of these publications, and to a number for distribution to individuals, as a reward of good husbandry. Correspondents will also be entitled to a copy of the number in which their communications shall appear.

In this volume a description of the madder plant is given, with the mode of its cultivation. There seems to be no reason why it could not be successfully cultivated in this State. Many hundred thousand dollars are annually paid by our manufacturers for it, which is all imported from Europe.

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### A. D., 1814.

The Board remained the same as last year.

Mr. Prince communicated to the Board a written statement of the increase of his flock of Merino Sheep, since the year 1810, and the average weight of fleeces each year, showing an increase of weight each year, with a discernible difference in quality.

A premium was awarded to Mr. Andrew Haliburton of Portsmouth, for a machine for cleansing butter from its whey, without working it by the hand.

The premium for the best machine for cutting straw, was adjudged to Elisha Hotchkiss, of Brattleboro, Vermont;\* and that for the best herd of swine to Ely Cooley, of Deerfield.

Communications on the comparative productiveness and value

\* The patent right was afterwards purchased by the Board, for the benefit of the State.

of different species of grass, and the importance of plaster of Paris as manure ; of an experiment carefully made by Josiah Quincy, showing that the topping of carrots while growing, to be used as fodder, is injurious to the crop ; on the result of an experiment, by Mr. Brooks, on the raising of wheat ; from Thomas Hews, Esq., of Dorchester, showing from experiment the superior advantages of drill husbandry over broadcast ; from Mr. Taft, of Uxbridge, and Capt. John Jenks, of Salem, giving an account of their wheat-crops ; on wheat, barley and carrot crops of the past season, by Gorham Parsons, Esq. ; from Asa Andrews, giving an account of a disease in the feet of cattle, not unlike the foot-rot in sheep, cured by cutting off the fore-ends of the hoof ; also, various answers from the different town farming associations to the queries issued by the Board.

Several threshing machines were exhibited for the premium offered by the Board.

A Committee was appointed to invite the American Academy of Arts and Sciences, the Trustees of the Boston Athenæum, the Massachusetts Historical Society, and the Linnæan Society, to appoint Committees to confer upon the expediency of applying to the Legislature for authority to raise by lottery, the sum of Forty Thousand Dollars, for the purpose of purchasing a lot of land, and erecting a fire-proof building, suitable for the accommodation and preservation of their respective libraries, documents, &c.

One hundred dollars was appropriated to the purchase of native forest-trees, to be planted in the Botanic Garden.

One hundred pounds was devoted to the purchase, and importation of Agricultural Works.

The expediency of establishing a seed store, under the patronage of the Board, with a list of the seeds to be kept on hand, was referred to a Committee.

Five hundred and fifty dollars was contributed to the Professorship of Natural History.

## A. D., 1815.

Samuel G. Perkins retired from the Board, and Edward A. Newton was elected to fill his place. Upon his declining to serve, a special meeting of the Society was called, and the Rev. John T. Kirkland was chosen to fill the vacancy.

It was voted that each member of the Society should pay an assessment of one dollar annually, or on payment of five dollars, he should be considered a member for life, and be exempted from future assessments.

Messrs. Lowell and Parsons were appointed a committee to report a plan for a general cattle show, should they deem it expedient to patronise one. They subsequently reported in favor of an annual exhibition of this kind, under the patronage of the Board in the month of October.

Models of several new agricultural implements, or improvements upon old ones, were subjects of trial this year, of which the only one that seems to have met the entire approval of the Board, was the straw-cutter of Mr. Hotchkiss. The patent of this was purchased, and a person was employed to manufacture and distribute them among the agricultural societies of the State. Among other inventions was a machine, by the aid of which, a current where there was no head of water might be used as a water-power, and applied to the working of machinery. Upon trial, however, it did not equal the expectations entertained of it. The sum of five hundred and fifty dollars was paid to Professor Peck, for the use of the Botanic Garden.

A letter was read from Obed Mitchell, of Nantucket, stating that in consequence of the severity of the last winter, (1814-15) and the scarcity of fodder, one-half of the sheep of the island had perished.

John Kenrick, Esq., of Newton proposed for consideration, a new and cheap method of destroying the canker-worm in a chrysalis state.

A. D., 1816.

E. Hersey Derby of Salem, was elected in place of Dr. Kirkland as Trustee. This was the only change in the Board.

The subject of holding an annual cattle show had been considered by the Trustees, from time to time, for several years, and it was finally acted upon by the adoption of the necessary rules and regulations, fixing upon Brighton as the place where they should be held.

The following printed announcement appeared in the number of the Journal for June.

## ANNUAL CATTLE SHOW,

AT BRIGHTON IN THE COUNTY OF MIDDLESEX.

The Trustees of the Massachusetts Society for Promoting Agriculture, taking into consideration the importance of improving the breed of domestic animals, and influenced by the example of enlightened societies in all parts of Europe, who have established annual exhibitions of such animals, and encouraged the cultivators to produce them by suitable rewards, and wishing as far as possible to fulfil the expectations of the Legislature of this Commonwealth, who have liberally patronized this institution, have determined to establish an *Annual Show of Cattle* in a situation, and at a season of the year, the most convenient for the citizens at large.

They have therefore adopted the following regulations, of which the Farmers throughout this State will please to take notice; and in order to save trouble to the Trustees and themselves, they will conform thereto, whenever they may see fit to become competitors for the prizes.

I. The annual show of cattle patronized by this society shall take place at Brighton, on the second Tuesday in October in every year, the first to be exhibited on the second Tuesday of October, 1816.

II. In order to assure to the competitors the most perfect fairness in the distribution of the Premiums, the Trustees will nominate three judges from among their own members, and two other gentlemen well skilled in such subjects, to be joined with them; the decision of a major part of whom shall be final, and the premiums shall be paid accordingly.

III. The Premium shall be divided into two classes, with respect to each description of animals, in order to encourage those who, having failed to attain the first premium, may yet be entitled to some reward for their exertions.

IV. The object or animals for which premiums shall be awarded, and the rates of such premiums shall be as follows, viz :

1. To the person who shall produce the finest Ox fitted for slaughter, of not less than thirteen hundred pounds weight, *forty*

*dollars*, or a *silver cup* of equal value, at his option, which cup shall be ornamented with a suitable inscription.

2. To the person who shall produce the next best Ox fitted for slaughter, *twenty dollars*, or a *silver cup* of like value.

3. To the person who shall produce the best pair of working Oxen, *forty dollars*, or a *silver cup* of equal value.

4. To the person who shall produce the next best pair of working Oxen, *twenty dollars*, or a *cup* of equal value.

5. To the person who shall produce the best Bull, having regard to his size, form, and other qualities, *thirty dollars* or a *silver cup* of equal value.

6. To the person who shall produce the next best Bull, having regard as aforesaid, *twenty dollars*, or a *silver cup* of equal value.

7. To the person who shall produce the best Milch Cow, with the requisite proofs of her goodness as to quantity and quality of milk, *twenty dollars*, or a *silver cup* of equal value.

8. To the person who shall produce the next best Milch Cow, *fifteen dollars*, or a *silver cup* of equal value.

9. To the person who shall produce the best Merino Sheep, not less than five in number, whether rams or ewes, having regard to their forms and fleeces, *forty dollars*, or a *silver cup* of equal value.

10. To the person who shall produce the next best Merino Sheep, being at least five, *twenty dollars*, or a *silver cup* of equal value.

11. To the person who shall produce the best native Sheep, whether rams or ewes, being at least five, having regard to their size, form, quantity and quality of fleece, *ten dollars*, or a *silver cup* of equal value.

12. To the person who shall produce the best Swine, not less than *two* in number, and not less than one year old, *ten dollars*, or a *silver cup* of equal value.

13. To the person who shall produce the next best Swine, not less than *two* in number, and not less than one year old, *five dollars*, or a *silver cup* of equal value.

V. The said premiums shall be adjudged on the day of meeting, and shall be paid within ten days after the meeting, or sooner if convenient, and if the party shall elect to receive money.

In case any of the Trustees shall be competitors, one of the Trustees being a member of the Board shall be replaced by a person not a member of the Board, so that in such case the judges not being members of the Board shall constitute a majority.

The Farmers, it is hoped will view this attempt to improve the breed of our domestic animals with favor, and as an additional and much stronger inducement to enter into the competition; they will of course reflect, that this *Cattle Show* will draw together a great collection of persons, and thus will much facilitate the sale of their cattle, and also that the animals which shall command the prizes, will sell at very much enhanced prices, either for Boston market, or to Commoisseurs who may be desirous of improving their own breed.

AARON DEXTER, *President*.

The account of the Show is thus given in the Records :

“The Board of Trustees met at Brighton, on Tuesday, the 8th day of October, 1816, to attend the first cattle show established agreeably to a vote at a former meeting. All the Board attended. The Board having assembled at the Town Hall, and a great concourse of people attending to witness the proceedings, the meeting was adjourned to the meeting-house in Brighton.

“The President, (Dr. Dexter,) having called the attention of the assembly to the objects of the meeting, the Corresponding Secretary, (Mr. Lowell,) stated the advantages expected to accrue to the country from the institution of a cattle show, and read the regulations adopted and previously published in the newspapers and Society’s Journal.

“The President then delivered an appropriate address, which having finished, he gave notice that the judges appointed agreeably to the regulations, would forthwith proceed to view the animals entered for the prizes. After the inspection and a trial of the working cattle, the Board, attended by a numerous company of distinguished and respectable citizens, partook of a dinner provided at Hastings’s Tavern. Toward evening the public were re-assembled at the meeting house to hear the premiums as adjudged by the Committee.”

Among the successful competitors was Mr. Caleb Oakes, who received the first premium of \$20 for the best milch cow. This was the celebrated Oakes cow. Fisher painted a portrait of her, by order of the Trustees, from which an engraving was afterwards taken. The original picture has been unfortunately lost. It was placed in the hands of the President of the Board, to be transmitted to his successor. A *lapsus* in the transmission took place, but at what point of time is not known to the Board.

Another important movement was made this year, which has been continued to the present day. This was an order sent out to Messrs. Welles & Williams, to procure from France two bulls of the Alderney breed, and two Alderney cows.

John James, 3d’s, invention of a machine for winnowing grain, was approved and recommended, and the Secretary was authorized also to give a certificate to any one, authorising the the making and vending of Hotchkiss’ Straw Cutter within the

State. Several threshing machines were exhibited by models constructed at the expense of the Society. A large number of seeds was presented to the Society, from different quarters of the world, and distributed.

The annual assessment of one dollar was abolished. Members hereafter admitted, were required to pay five dollars, entitling them to all the privileges of a member for life. Those of the present members who preferred to pay the annual assessment, instead of one payment of five dollars were allowed to do so.

### A. D., 1817.

Mr. Preble retired from the Board, and Mr. Nathaniel Ingersoll was chosen to fill his place. He declined serving, and at a special meeting, the Hon. John Welles, of Boston, was chosen.

Efforts were still continued to discover, or to procure the invention of, a good threshing machine. A letter was directed to Ex-President Jefferson, to obtain a description of one used by him, and to learn his opinion of it; also, to Rev. Mr. Elliot of Boscawen, respecting one invented by him.

The Second Annual Cattle Show took place at Brighton, on the 14th and 15th of October.

The premiums offered this year, embraced a much wider range of objects than the year preceding. Ploughing matches were instituted; articles of domestic manufacture, improved implements of husbandry, and agricultural experiments being upon the list.

The first premium for the best milch cow was not awarded, "the best cow on the field not having been entered seasonably, according to the rules and regulations, and it was thought improper to give the first premium for any cow, while a better one was on the field."

Mr. Fisher was employed to paint Col. Chapin's oxen, and the large heifer exhibited at the cattle show.

A Committee was appointed to consider the expediency of



erecting a building at Brighton, for the accommodation of the articles of domestic manufacture and improved implements of husbandry, at the cattle show.

The thanks of the Board were presented to the Hon. Israel Thorndike, for the promptitude with which he undertook to forward the views of the Society, as to the importation of foreign cattle, and for the liberality and activity which he displayed in the pursuit of the same.

The Trustees in their report of this year, in speaking of their doings, say that they "wait with impatience the arrival of the cattle from Normandy, to which their attention was originally directed, and regret that the limited state of their funds, would not permit them to extend their premiums beyond a given number of animals."

Two medals, or cups, of the value of thirty dollars each, were voted, one to Capt. Charles Tracy of the ship *Galen*, in testimony of the sense which the Trustees entertained of his public patriotism, in taking care of and preserving a fine cow and calf, introduced into this State, in the ship under his command; the other to Capt. Samuel Nichols of the ship *Liverpool Packet*, for taking care of and preserving a fine cow, introduced in his ship, for the purpose of improving the breed in this State, and an inscription to that effect was ordered to be engraved thereon.

Mr. Quincy was requested to revise the *Queries on Agricultural subjects*, formerly published by the Society, and Mr. Derby was appointed a committee to publish the revised list, bound up in the *Farmer's Almanac* with blank leaves, and to cause a suitable number to be circulated among the farmers of *Essex*, with a request that they would enter answers to said queries, and return them to the Board of Trustees.

This was done accordingly, and from an examination of some of those still remaining, it is evident that much valuable information may be obtained by this method, on the practice of husbandry.

A Committee was appointed to procure from England, at the expense of the Society, such new and approved agricultural machines, as they may think would be useful.

Daniel Waldo, Esq., of Worcester, presented one hundred

dollars to the Society, to aid in the erection of a suitable building at Brighton, or other purpose, at the discretion of the Trustees.

It was voted to recommend to the Society, at its annual meeting, to choose an Assistant Recording Secretary.

Four hundred and fifty dollars in money, was paid to Professor Peck, for the use of the Botanic Garden, besides sundry bills for trees, &c.

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### A. D., 1818.

There was no change in the Board this year. Benjamin Guild was elected Assistant Recording Secretary.

Seeds from France were presented by Mr. Welles; samples of various kinds of wheat, by Mr. Parsons; turnips from seeds presented by Ex-President Adams, and two or three different kinds of corn; also, a very large ear of corn, exhibited by Mr. Pomeroy, planted the 7th of May and the whole crop harvested on the 22nd day of August.

The Annual Show was fully attended this year, and occupied two days, the address being delivered by Mr. Lowell.

Various agricultural implements were imported from England, to serve as models for manufacturers of them in this country.

The Bull "Fill Pail" was placed in the hands of a Committee, with authority to give him, if they should see fit, to any farmer who would agree to keep him for two years, within twenty miles of Boston. The Bull was imported by Hon. Israel Thorndike, and placed at the disposal of the Trustees. He was finally sold to Mr. Breed, for one hundred dollars, on the condition that he should be kept in the State one year.

A piece of land in Brighton, having been generously given to the Society, for the purpose of erecting thereon an Agricultural Hall, by Mr. Abiel Windship, the Trustees voted to proceed to the erection of the building, and a Committee was appointed to solicit subscriptions for that purpose, and a sufficient amount was obtained without much difficulty among the Trustees and their friends.

## PREFACE TO THE JOURNAL FOR THIS YEAR.

SOME apology may be thought necessary for occupying so large a part of the present Number with the reports and documents, which relate to the late cattle show at Brighton. When, however, the reasons which induced the Trustees to give so detailed an account shall have been stated, they hope they will be deemed a sufficient justification.

If the useful and ornamental arts are susceptible of encouragement and improvement by publick rewards and exhibitions, or if any advantage can be supposed to be derived from such competition, it can scarcely be questioned, that these beneficial effects will be promoted by giving an extensive circulation to the history of such competitions. There has been scarcely an age or nation, in which the effect of publick exhibitions and rewards has not been tried. Among the ancient nations, they were instituted to encourage skill in horsemanship, in the management of ships, and in athletic exercises, chiefly with a view to fit and improve the combatants for war. In more modern times, they have been employed for the encouragement of the art of painting, or for the purpose of improving the breed of horses. It is only within a few years, we believe, that in Europe or America, this important principle of competition has been applied to the advancement of the most important of all arts, Agriculture.

It must be unnecessary to adduce any arguments to shew, that such exhibitions tend to the encouragement of this art. The continuance and extension of them, from year to year, in almost every part of Europe; the rapid improvement in the animals and productions offered for exhibition; the ardor with which they are attended, and the deep interest exhibited by the competitors, as well as spectators, preclude the possibility of doubt.

Such exhibitions serve to bring the agricultural art into greater credit, and to advance its professors to the high standing which they deserve. They make known more completely the powers and capabilities of a country; they draw from obscurity the modest, but ingenious and intelligent cultivator; and by making apparent the superiority of his productions, lead to a knowledge of the art and skill by which he was enabled to bring them to perfection. Who, for example, would have supposed, that Massachusetts could furnish an animal like the Oakes cow, capable of producing nearly 500 pounds of butter in a season? And how important to learn, that a very considerable portion of this product was owing to a liberal manner of feeding, which would astonish and alarm most farmers, and yet which was amply repaid by the increased productions?

There are other reasons for such a publication of the result of the late exhibition. It is in this country, as yet, but an experiment. To the munificence of the government of this Commonwealth, are the Trustees, in a considerable part indebted for their ability to offer such a number of rewards, and to so liberal an amount. A very small portion only of the people can be witnesses of the exhibition. The Trustees, therefore, as agents for the publick, and in some degree entrusted with the application of the publick money, owe

to the whole community a full and satisfactory account of the effects of these rewards. The Trustees have, it is true, published a succinct history of the claims and decisions, but there are material defects in this mode of proceeding, and it was adopted only to satisfy the momentary curiosity of the publick. Some persons might retain a degree of incredulity as to some particulars, such as the amount of agricultural productions for which premiums had been granted, or the times in which the several competitors in the ploughing match performed their labour. As an example of this skepticism, it may be remarked, that some of our neighbors were very pleasant upon the speed of our oxen. The Trustees have no disposition to spoil a little pleasantry, but they would wish to prove to the world, that they are not in the practice of publishing extravagant accounts. They have, therefore, resolved to print the separate reports, on every branch of competition, with all the documents and vouchers which accompanied them.

They form a body of evidence, which would be sufficient to establish facts of much greater importance, and points of much more incredible character. To the report of our ploughing match, at Brighton, they have subjoined an account of the best trial of the same nature, which they could find in the Bath and West of England Society's papers; and to the official return of the weight of our prize oxen, they have added the weight of the largest ox ever slain in England, and whose size is on record.

It may be of use, and produce confidence in the decisions of the Trustees, to state, that in every branch in which any one of the Trustees was a competitor, there were two judges of great skill and irreproachable character chosen out of the board, and not one Trustee was permitted to sit even as a member, much less to give a vote on any Committee appointed to decide on any class of articles, in which such Trustee was a competitor. In addition to which it may be remarked, that there were as many claims of Trustees rejected, as there were of other persons, in proportion to their respective numbers. A transaction, which merits the thanks of the community, has in some instances been either misunderstood or misrepresented. An idea has prevailed in some places, that the Trustees had purchased the cattle to which the first premiums were awarded. The fact is not so. The Springfield oxen had been celebrated for a year past. They were supposed to be the finest ever produced. There was a strong desire on the part of many persons, that Massachusetts might have the credit she deserves as a grazing country. Col. Chapin was not willing to drive his cattle to Brighton, at his own risk.

Some generous publick-spirited gentlemen, out of the board, and a few within it, subscribed a sum to purchase the cattle in order that they might be exhibited at Brighton, and at a certain, inevitable, expected loss. They paid 1050 dollars for the oxen. Col. Chapin drove them down, and, as was agreed, took the premium himself in part payment for them. They were not exhibited, as they might have been, for profit as a show. There has been, as was expected, a loss, but the remuneration consists in having shewn to thousands of spectators, the finest animals *probably* at *that moment* in the world, the products of the rich pastures of Massachusetts.

To conclude, this account ought to be continued annually in the present form, as it serves as a foundation for a complete history of our agriculture. How valuable would be such a document respecting the agriculture of Rome, under the republic, and the emperors, and of Great Britain, even if it were but one in each century. We rejoice to see similar societies springing up in every part of our country. Publications emanating from them will make us better acquainted with the progress of civilization, and the comparative wealth and advancement of the different sections of the United States, than we can in any other way become.

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### A. D., 1819.

The Board continued the same as last year.

Mr. Lowell was appointed a committee to confer with the Treasurer of the Visitors of the Botanic Garden, on the claim of the Society against Abiel Wood, on a contract for the sale of a township of land to him.

Samples of wheat and millet from Russia, the seed raised by Capt. Seth Spring, of Saco, were presented.

At the Annual Cattle Show this year, there was a full attendance, and the exhibition generally was superior to either of the preceding ones, and showed an evident progress, and improvement. The Trustees, in their Report say, "If any thing further could be necessary to satisfy the public of this fact, we might add that the finest specimens of young animals were in almost every case, the progeny of those to whom the Society and public suffrage had awarded the premiums on former years."

"Thus, to instance a few examples,—the progeny of the excellent bull Fill Pail, though raised in various parts of the country, were in every case distinguished by their resemblance to the sire, and they afford a reasonable hope, of which time only can decide, that they will prove an important acquisition, and work rapid improvement in our stock of cattle destined for the dairy."

"The same remark may be made, with still greater force, as to the progeny of Mr. Williams' extraordinary imported Teeswater Bull."

Among the premiums given, was one of thirty dollars for an imported cow, of the Alderney breed.

Forty-four bushels of wheat were proved to have been raised upon an acre of land, by Mr. Richardson.

It was voted that the stated meetings of the Trustees, for the future, shall be invariably on the second Saturday of each month, and that it shall be the duty of the Recording Secretary to notify the gentleman whose turn it may be, one week before issuing notifications for the meetings, which notifications shall be at least one week previous to the meeting, and if the gentleman whose turn it is, finds it inconvenient to have the meeting at his house, he shall find some other Trustee to exchange with him.

A great variety of seeds was received and distributed this year; and several improved ploughs and other agricultural implements were introduced by the Society to public notice.

Two numbers of the Journal were printed during the year, the second of which contains an able article on "the Agriculture of Massachusetts," by Mr. Lowell, which will appear in the Appendix, or in a succeeding volume.

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## A. D., 1820.

There was no change of Officers this year.

Mr. Parsons, Chairman of the Committee to attend the Cattle Shows of the Worcester and Middlesex Societies, reported, the pleasure experienced in performing that duty, and the great gratification afforded by the attentions received, and by the exhibitions of animals and manufactures, witnessed by the Committee.

Mr. Quincy was appointed to superintend the Society's publications.

Hon. John Coffin, of St. John, N. B., presented to the Society a fine stallion, five years old, of the light cart breed, (Suffolk Punch) bred in England. This horse was named Columbus,

and was "placed out" for the use of the public, at the charge of the Society.

General Coffin afterwards received the Society's gold medal, and was chosen an honorary member of the Society for life. The Trustees, at the same time, "express their high gratification in the evidence, which the two last years have afforded, that in the exertion to promote the cause of agriculture, there has been a generous emulation and mutual co-operation between the Societies for the promotion of agriculture in the United States and those of the British Provinces in America."

A premium was offered in co-operation with the Proprietors of the new market in Boston, for the best butter brought to that market.

The long pending difficulty with Mr. Wood, in the contract for the sale of the township of land granted, but not located, by the Legislature, was settled by a cancelling of the bargain.

The cattle show at Brighton, was a successful exhibition. The address was delivered by the Recording Secretary, Richard Sullivan, Esq., and was replete with sound, practical information.

The Chairman of the Committee on *Domestic Animals*, of every description for which premiums were offered, Hon. John Lowell, made a full and interesting report, from which we extract the following:—

"The effect of this show on the character and qualities of our domestic animals, was so marked and so unquestionable, that a man who had viewed the exhibition in its infancy, four years since, could scarcely believe that he was in the same Society, and surrounded by the same cultivators, who assembled and brought their best productions at that period. The race of hogs was so entirely changed and improved, that we could with difficulty recognize a feature of the tall, raw-boned, thick-legged race, which had for so many years been the disgrace, while they had consumed the profits, of the farmer of Massachusetts. The same remark applied, with still greater force, to the exhibition of fat cattle." \* \* \* \* \*

"It is a great pleasure to us to announce that our premiums and encouragement have induced Mr. Williams, of Northborough, to introduce a pure Teeswater Bull, Mr. Parsons (one

of the Trustees) a Holderness, and Mr. Coolidge his admirable bull Cœlebs, of the same race." \* \* \* \* "We ought not to omit the introduction of the Flanders breed (Fill Pail) by Col. Thorndike, a stock which, if we can judge, either from its reputation in Europe, or the present promise of its progeny here, may prove little, if any inferior, for the dairy, to the best races of England." \* \* \* \* "The greatest benefits we have ever hoped to derive from these exhibitions and the offer of premiums, were that we should select and save from indiscriminate slaughter, *the finest of our own stock*, while we should gradually improve it by crosses with the best animals of foreign countries. There can be no stronger proof of the benefits we have derived, than the fact that the progeny of the foreign races are, by the public as well as the Committee, preferred to those of our native stock."

The show of implements was very much increased this year, many of them being new inventions: among these was a hominy mill, which cracked a peck of yellow corn in four minutes, and was, judging from the description, not unlike the "*Little Giant*" mill of the present day. A corn-sheller, on a new principle, was exhibited; also a straw-cutter, a plough for paring meadows, a double forcing pump, and a flax-seed separator.

A pistol was likewise exhibited, containing seven barrels, so constructed as to discharge seven balls successively with once loading and priming; upon which the Committee remark, with some jocularly, that "they do not deem themselves authorized, notwithstanding the ingenuity displayed in its construction, to recommend any premium, it not being an instrument of use in agriculture; and having no certificate of its having been used and improved by a practical farmer."

Any further notice of sums given and services rendered to the Professorship of Natural History, is omitted, simply closing with the remark, that until the final relinquishment of the visitorship, it continued to receive the care and attention necessary to its full development and usefulness.



A. D., 1821.

The Board continued the same as last year.

The Treasurer was authorized to procure two pairs of the breed of Leicester sheep.

A letter was received from N. Biddle, Esq., of Philadelphia, describing a mowing machine.\*

The address at the cattle show, in October, was delivered by the Rev. Mr. Colman, a great portion of whose life was devoted to the cause of agriculture. The premiums offered amounted in the aggregate to two thousand dollars. The number of entries for premiums on horned cattle had increased from thirty-seven, in 1817, to more than one hundred, the number of animals exhibited exceeding three hundred, notwithstanding three "very respectable county societies had sprung up full grown in our immediate vicinity."

The Supplementary Report of the Committee on Agricultural Experiments is worthy of attention.

THE Committee on Agricultural Experiments, submit for the consideration of the Board, the following, in addition to their Report dated the 11th day of October last, to wit :—

That Payson Williams, Esq., of Fitchburg, in the County of Worcester, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Potatoes, being five hundred and fifty-one and a half bushels, on one acre of land. Mr. Williams has been a successful competitor for some of the premiums offered by the Trustees, three years in succession, which must be attributed to his skill in husbandry, and to the excellent management of his agricultural concerns. In his communication to the Committee, he states, that "he planted 24 bushels of potatoes, 3 of which were the Irish Apple, so called, imported from Liverpool, last winter, 3 the Fitchburg Whites, and the remainder the Rio de La Plata Reds. The relative yield between the European, American, and South American, resulted in favour of the reds of La Plata; yet in quality, for the table especially, the Irish are far superior to either, and ripen four weeks earlier than the other kinds." The entire expense of culti-

\* The attempt to mow and reap by a machine, impelled by horse power, is not of modern date. The first of which we have any record of its being practically used, was the invention of a play-actor, who took his leave of the stage, at Manchester, in the year 1811, in the play of "Speed the Plough," in which the machine was operated on the stage. There was also a patent granted by the Colonial Legislature of Massachusetts, for a mowing machine.

vating this acre of land in potatoes, including the value of the manure, was eighty-four dollars and ninety-eight cents. Mr. Williams also claims the premium of thirty dollars, for having raised the greatest quantity of Spring Wheat, on one acre. The Committee, however, did not consider him to be entitled to said premium, the quantity raised not exceeding a medium crop for Massachusetts. In his letter to the Committee, he says, "The extreme drought of the season will account for a crop of no more than twenty bushels and twelve quarts of wheat from the acre."

That Messrs. Tristram and Henry Little, of Newbury, in the County of Essex, are entitled to the Society's premium of thirty dollars, for having raised the greatest quantity of Indian Corn, being one hundred and five bushels and six quarts of sound corn, on one acre. In their statement they say, "The seed was the eight-rowed yellow corn, selected in the field, the preceding crop, from the most fruitful, thrifty stalks—four or five kernels put into each hill—the hills were four feet by three feet apart: it was hoed three times, and the vacant hills filled up the first and second hoeing by transplanting from those that had four or five stalks, calculating to have three stalks in each hill."—The entire expense of cultivating the acre, including the cost of the manure, was thirty-nine dollars. Messrs. T. & H. Little are also entitled to the premium of twenty dollars, for having raised the greatest quantity of common English Turnips, on one acre, being seven hundred and fifty one bushels, "completely trimmed, fit for the market—about two hundred bushels have been sold, some of them were sold by the ton, and have been weighed, and we find that they weigh fifty-four pounds to the bushel. The land was ploughed with a horse, and a double mould board plough, in ridges three feet apart—one row was sowed on each ridge, with a machine, which took one pound of seed, and a hand roller was made to pass over each ridge, which completed the sowing, which was on the fourth of July. When they were out of the way of the fly, they were thinned, to the distance of one foot apart, on the ridges; they were twice ploughed and hoed: about the last of October they were harvested." The entire expense of cultivating the acre, including sixteen dollars, the cost of nine cords of manure, was thirty-two dollars and thirty-three cents.

That John Prince, Esq., of Roxbury, in the County of Norfolk, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Mangel Wurtzel, being six hundred and forty-four bushels, on one acre. Mr. Prince says, "The soil is a rich light loam, on a hard, gravelly bottom, on a hill descending to the South, having sixty apple trees in the above space, averaging fifteen feet high, which obliged me to have the rows directly up and down hill. The heavy rains washed, and very much injured the crop;—could they have been across, I doubt not one third more at least of roots would have been gained. The entire expense of cultivating the acre, including forty-six dollars for twenty-three loads of compost manure, was sixty-nine dollars and seventy-five cents, being 10 $\frac{3}{4}$  cents per bushel, of fifty-six pounds weight; from which must be deducted a large quantity of thinnings during the season, and also of leaves at

the time of harvesting. Having succeeded perfectly in preserving my roots in the ground last winter, as published in the Repository, No. 3, volume 6, I have this year deposited, in precisely the same manner, most of the above crop, and also about four hundred and fifty bushels of Ruta Baga."

That E. Hersey Derby, Esq., of Salem, in the County of Essex, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Cabbages, being forty-three tons, nineteen hundred and ten pounds, weight, on an acre.

Mr. Derby is also entitled to the premium of thirty dollars, for having raised the greatest quantity of Vegetables, (grain, peas and beans excepted) for winter consumption of the stock on his own farm. It will be seen by the certificates produced by Mr. Derby, and which accompany this report, that he raised the last season on his farm, 749 bushels of Mangel Wurtzel, 530 bushels of Carrots, 526 bushels of Swedish Turnips, 1288 bushels of Potatoes, 126 bushels of Russian Radishes, 757 bushels of Common English Turnips, 43 tons and 19 hundred weight of Cabbages, and 15 ox cart loads of Pumpkins.

That Mr. David Little, of Newbury, in the County of Essex, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of Ruta Baga, being six hundred and eighty-eight bushels, on one acre. "The seed was sowed on the 12th and 13th of June, one on each ridge, which took 3-4ths a pound of seed, and covered with a light harrow, drawn by a horse, lengthways of the rows. The entire expense of cultivating the acre, including the cost of four cords of manure, was twenty-three dollars seventy-nine cents." Mr. Little also raised five hundred and thirty bushels of common Beets on one acre.

That Mr. William Mears, of Marblehead, is entitled to the Society's premium of twenty dollars, for having raised the greatest quantity of white Beans, being thirty-two bushels and four quarts, on one acre.

Claims for premiums were also exhibited to your committee by Thomas Shepherd, Esq., for having raised eighty-seven bushels and three-fourths of a bushel of Indian corn, on one acre. Col. Samuel Wright of Westford, in the County of Middlesex, for having raised seventy-eight bushels and five quarts of Indian corn, on one acre. Mr. John Dwinell, of Salem, for having raised five hundred and twenty bushels of carrots on one acre; and on the like quantity of land, five hundred and eighteen and a half bushels of potatoes. And John Prince, Esq., for having raised the greatest quantity of vegetables, (grain, peas and beans excepted,) for winter consumption of the stock on his own farm.

For raising the greatest quantity of parsnips, common beets, onions, and dry peas, for proving by actual experiment, the best season, and modes of laying down lands to grass, whether Spring, Summer, or Fall seeding, be preferable, and with or without grain, on different soils; for soiling cattle; for turning in green crops as a manure; for the greatest quantity of good honey, and superior skill in the management of bees; for the best mode of rearing, feeding, and fattening neat cattle; for the best superfine flour, manufactured in the State of

Massachusetts, from wheat raised in this State, no claim for premiums were made; these several objects are of great importance to the Agriculturists of the commonwealth, and deserve, and the Committee hope will have their attention, in the coming year.

By order of the Committee,

THOMAS L. WINTHIROP, *Chairman.*

Boston, Dec. 22nd, 1821.

## A. D., 1822.

There was no change in the Officers of the Board this year.

The address at the annual cattle show, at Brighton, was delivered by Col. Timothy Pickering, an earnest and practical agriculturalist. His subject was "the chemical process of compounding manures, with the application of these principles to common farming." Col. Pickering's address is said to have been too practical to suit the ladies, who had come in great numbers to hear him. It savored less of the flowers, than of the compost from which they sprung. There was a large general attendance on this occasion, and the number of animals exhibited, as well as their superiority, showed a marked improvement in this department of agriculture.

A fire in Wells & Lilly's bookstore destroyed a great part of the impressions of the volume containing the account of the show of this year.

A ram was presented to the Society, by Hon. D. L. Pickman, of Salem, who received it as the long-wooled sheep of Arabia.

An Essay on the Natural History of the Salt-marsh Caterpillar, by Dr. Harris, of Milton, was submitted to the Board, who voted that the Society's gold medal, of the value of thirty dollars, be presented to Dr. Harris, and that the essay be submitted to the Publishing Committee, to make an abstract of it for publication.

Not the least valuable portion of the published transactions of the Society is to be found among the Reports of the Committees on the subjects for premiums at the cattle shows. The following extract from the report on horned cattle will be read with

interest, as showing the views entertained more than thirty years ago, in relation to native stock.

*This* Committee having under their cognizance the articles for which the show at Brighton was *originally principally* designed, may be indulged in making some general remarks on the tendency and effect of their exhibitions.

It is not more than forty years, since the idea was entertained in Great Britain, that a spirit and energy could be given to agricultural efforts, by associations, public exhibitions, and premiums judiciously awarded. The effects produced in that country, more especially in the improvement of their stock, have far exceeded the most sanguine hopes of the first promoters of this system. We have little and indeed no doubt, that the horned cattle and sheep of Great Britain were fifty years since, not superior to ours. We believe that the races of domestic animals imported from any part of Europe, not only do not deteriorate, but that they improve in all the northern parts of the United States. We believe that we have native animals of all descriptions, with the exception perhaps of the crosses of hogs with the Chinese breed, (which we have however recently imported,) equal to any Great Britain possessed forty years since, when Bakewell, Coke, Princeps, and a hundred other farmers, or opulent landholders in that kingdom, set about the patriotic work of improving their native breeds. They did not commence it by *importations*—they confined themselves simply to *selection*, and the effects were such as that in a few years, bulls, which of the best description at a former period might have brought one hundred dollars, sold for four thousand five hundred dollars. This was no speculation of a visionary character, like the rage which prevailed with us for a short time in relation to Merino Sheep. It sustained itself, and exists to the present hour, so that a bull calf of certain breeds considered perfect, will bring from two hundred to four hundred dollars.

If we were asked the general character of our best shows of cattle compared to those at Smithfield on their anniversary show, or at Lewes, or many other places in England, we should say that it will require at least ten, or perhaps twenty years, for us to equal them. Yet it is our firm conviction, that if we had never imported a single foreign animal, but had excited a strong zeal in our own country to select and propagate the best animals of native production, we should in the course of twenty or thirty years have been able to send animals to Great Britain and contend against their best raisers of stock for the first prizes. Nay more, we believe *now*, that if we could transport the *best working* Cattle of Worcester and Norfolk, (the latter however being all purchased from back counties) to Great Britain, they might challenge *all the three kingdoms* to compete with them in all the various points of labour to which cattle are applicable. These working cattle are, *we know*, as much superior to theirs, as our stock is inferior to theirs in the articles of bulls cows, sheep and hogs. The fact, that we are so superior to them in this point, of which we have no question, proves, that we have among us an admirable but neglect-

ed race of animals, and the reason is obvious. Is a *calf* remarkably *fat*? Does he weigh one hundred and fifty pounds at the end of six weeks, and that accompanied by an excellent form and proportions? His fate is decided. He must feel the sharp knife of the butcher—he must prematurely pay the forfeit of his uncommon and excellent qualities, and load the table of our *epicures*, who would have made a better dinner on a smaller and less valuable animal.

It may be reasonably asked then, why have you encouraged the importation of *foreign stock*? Why have you paid such liberal prices to those who have imported them? Our answer is very brief—and we hope satisfactory. It was done *principally* with a view of shewing our farmers, what *had* been done in *other* countries in a short time by careful selection and cultivation. No man who ever saw Denton, Mr. Williams's bull—Fill Pail, Mr. Thorndike's, presented by him to the Agricultural Society—Cœlebs, sent to our country by Mr. Coolidge—or Holderness, imported by Mr. Parsons, could entertain a doubt, that they were superior to any animals of the same description which we had ever seen. It was a short and conclusive mode of producing conviction;—though equal care might in a few years have produced an equally improved native stock, yet the process would have been slow, and every lost year is of great importance.

That these animals did produce a great impression upon our farmers, it is now needless to state. The simple fact, that farmers, always too cautious of adventuring their money, were ready to send their cows at five dollars, and even ten dollars, to these imported animals, instead of fifty cents for the use of our native bulls, is conclusive.

But what is still more conclusive, because the facts we have now mentioned *might* have been the effect of fashion, or of speculation, is, that when the *progeny* of these animals appeared at our shows, they attracted every eye, and commanded on an average *four times* the price of our native breed.

The effect has been so great as to cause the disappearance of our native breed of *young* animals at our shows, with a few exceptions.

It ought however to be remarked that our cows offered for premium, are still almost entirely of domestic growth, and of most estimable qualities; so that we seem to possess all the advantages we could desire of availing ourselves of the perfection of the British stock connected with females of excellent properties of our native breed.

A. D., 1823.

Dr. Dexter declined a re-election as President, and Mr. Pomeroy as First Vice-President. The Hon. John Lowell was elected President, Hon. Thomas L. Winthrop, First Vice-President, Hon. Israel Thorndike, Second Vice-President, Hon. Richard Sullivan, Corresponding Secretary, and Gorham Parsons, Esq., Recording Secretary. Dr. Dexter continued in the Board as Trustee.

A premium was offered "to the owner of the best cultivated farm within the precincts of the several Agricultural Societies of this State;" the sum of thirty dollars each, in addition to the premium which might be awarded by such local society to the claimant; and it was agreed that the Trustees will accept as full evidence of the merits of such claim, a certificate signed by the President of the Society, certifying that the claimant was declared by the Society, or its Trustees, entitled to the premium within that district. It was, however, made a condition that the applicant shall be held bound, in all cases, to exhibit a statement of the extent of his farm, the state and plan of his farming buildings, his mode of collecting and managing manure, the number of domestic animals usually supported thereon, the quantity and quality of the land under cultivation, and his usual mode of culture, as well as the average amount of his crops of all sorts.

The first year of the New England Farmer having been completed, and it being represented that the patronage of it was unequal to its support, it was voted that from the able manner in which it was conducted, it was calculated to be highly beneficial to the farming interest; and it was recommended by the Trustees to the public, in the hope that there would be found a willingness on its part to increase the subscription, and thus secure to farmers this valuable vehicle of agricultural information.

A very superior short-horn Bull, was presented by Admiral Sir Isaac Coffin to the Society.

It was voted that for the season following the gift, he should be placed at the farm of John Prince, Esq., for the use of any

farmer, at five dollars for each cow ; that in future years, he should be removed from time to time, to various parts of the Commonwealth, at the discretion of the Trustees ; and in no case a higher price than the above should be charged, it being the wish to improve the stock of the county as rapidly as possible ; at the same time, putting such a price for his use, as to prevent farmers from being careless of his progeny, and not so high as to prevent his general use.\*

The Alderney bull, belonging to the Society, was sold.

A hay-making machine, worked by a horse, was presented to the Society, by E. S. Thomas, of Baltimore.

Mr. Francis Peabody, of Salem, presented to the Society three sheep, from the province of Astrachan, in Russia, remarkable for their excellence as mutton.

Hon. Thomas H. Perkins, also presented an improved breed of sheep.

The Annual Cattle Show was well attended, as usual. The Address was an informal one, by the President, Mr. Lowell, made previous to announcing the names and duties of the several committees on the awards of premiums, but distinguished like every thing that came from his lips or pen, by sound good sense and great practical knowledge.

Although the Trustees had been thus active and laborious in the cause in which they had embarked, both by their practical efforts in the cultivation of the soil, by their pens, their time and their money, there were not wanting those who decried their efforts, and endeavored to diminish their usefulness. The attacks came principally from those who had certainly not distinguished themselves for great liberality, zeal, or knowledge. Mr. Lowell, in an article under his own name, replied to them. The article is given at length, as it was published in the Massachusetts Journal, and would, with but little alteration, have been a fit reply by the Trustees to the attack made upon the Society, upon the occasion of a public discussion, in the Hall of the House of Representatives in Boston, in 1857.

\* The pedigree of this Bull, named the Admiral, by the Trustees, obtained by Mr. Wetherell—North Star, dam by Comet, grand-dam by Wellington, great grand-dam by Danby, North Star was by Comet, &c., &c.



*The History of the Massachusetts Agricultural Society—The recent attacks upon its management—General views on this subject.*

ONE of the editors is induced to avow his agency in these remarks, because he would not commit his colleagues, and because he entertains no sentiments on this, or any other subject, which he feels the smallest desire to conceal. The Massachusetts Agricultural Society has been charged with inefficiency, it has been accused of arrogating to itself merits which belong exclusively to the Society in Berkshire, it has been attacked from another quarter for adopting bad regulations as to its premiums at the annual Cattle Show, and by both classes of fault-finders, it has been stigmatized as a set of "*Gentlemen Farmers*" publishing unfair accounts of experiments, or making manure, and breeding cattle in their libraries—all these sarcasms fall pointless—they do not excite a feeling of irritation but of regret, that in a cause, in which of all others, one might hope strife could never enter, a generous, noble cause, of advancing the best interests of our common country, such feelings should be indulged and avowed. The Massachusetts Agricultural Society, its members and its trustees, have never claimed any exclusive or peculiar merit. They have endeavored to promote the interests of agriculture which they believed *one* of the most and indeed *the most* important branch of human industry. Its annual products compared with all others, are at least as fifty to one. It was in a wretched state in 1792, when this society was incorporated, perhaps *never* lower. On recurring to the list of original members it will be found to embrace persons in all parts of Massachusetts and Maine, a least seven eighths of whom were chosen from *agricultural* counties. It will be found also to embrace a large number of the most venerable and honourable names then in Massachusetts. I need only mention John Adams, James Bowdoin, Samuel Adams, Fisher Ames, George Cabot, John Brooks, Francis Dana, Rev. Dr. Dean, the author of the New-England Farmer, Lieut. Governor Cushing, Dr. Cutler the Botanist, Dr. Dexter, Hon. Samuel Dexter, his son Samuel Dexter, Jr., Justin Ely, Dwight Foster, Hon. Elbridge Gerry late Governor, and Hon. Nathaniel Gorham former President of Congress, Christopher Gore, William Heath, John Hancock, the very popular patriot and Governor, General Lincoln, Levi Lincoln, late Lieut. Governor, Hon. George Leonard, Theodore Lyman, Jonathan Mason, Samuel Phillips formerly President of the Senate, and Lieut. Governor, Hon. Timothy Pickering, Hon. Thomas Russell, first President of the Society, and greatest benefactor, Hon. James Sullivan, late Governor of the State, David Sears, Hon. Increase Sumner, late governor of this State, Judge Sedgwick, Judge Sewall, General Shepherd, Thompson I. Skinner, Judge Simeon Strong, Hon. Cotton Tufts, Israel Thorndike, Henry Van Schaack of Pittsfield, Hon. Joseph B. Varnum, Hon. James Warren, of Plymouth, and a much greater number. Need I say, that the founders of this extensive Society entertained liberal views, that it embraced without distinction of parties, a large, I might almost say an infinitely great proportion of all

that Massachusetts then possessed of talent, intelligence, influence and virtue? Has this Society in any *one instance* departed from its original purity and principle? Has it suffered that worst of all scourges, *party spirit*, to enter, *even for a moment*, its threshold? We defy any man, (for it has no enemies, and therefore we shall not confine the challenge to them,) we defy any man to point out a case in which it has permitted this deplorable feeling to enter into its measures. Singly devoted to the interests of agriculture, it has viewed with delight the confidence of all parties in its integrity and impartiality. We need not say that its published communications have been as frequently from one party as from another. The only remaining question is whether they have fairly fulfilled the public expectations. In the first place it may be remarked, that they made a most liberal subscription to a common fund, which now amounts to thirteen hundred dollars a year. It will be found that this whole fund was principally raised by donations from *opulent* men. Mr. Russell being the largest contributor, Mr. Gore the second, and Mr. Bowdoin the third. The fund has been increased to its present amount by the care, intelligence and zeal of the Treasurers of the Society, by the disinterested conduct of the Trustees who have never expended one cent for their own advantage or entertainment, but have husbanded the funds as if they were their own. Now we confidently appeal to our liberal friends, and associates in the common cause in the distant counties, whether the opulent part of the Society should be reproached for their efforts which treasured up a fund to be employed whenever the state of intelligence in the country, and the progress of society should demand it? If it be asked whether the society did much in its infancy, we answer readily and frankly, no. But with still more confidence we add that it was not their fault. The institution was ahead of the age and of the intelligence of the state, and of public spirit. Its two first volumes will shew that the trustees were not remiss. Their queries distributed all over the state, prove their zeal, their intelligence, their intimate knowledge of the real wants of agriculture. No society in Europe or America ever issued a more valuable set of queries, and no society could at this day improve them, except by some trifling additions derived from new discoveries. But neither Europe nor America were prepared at that time for the improvements and experiments which have since taken place. It is praise enough, that the Massachusetts Agricultural Society was the third in order of time, framed, established, and endowed to promote the cause of Agriculture, (as we believe) in any part of the world and that it never lost sight of its object, and was always ready to encourage, and reward all attempts to improve any one branch of agriculture, and give publicity to any ingenious suggestions for the promotion of this art. Is there any solid reason for encouraging a distinction between *practical* and *theoretical* farmers? Or if it pleases our witty friends, *gentlemen* farmers? The last expression, however, in such a country as ours, is invidious; it tends to excite prejudices. It looks, as if the theoretical farmers claimed to be *above* the practical ones. It leads to distrust, and to the propagation of prejudices against the truth. We shall consider this question

more fully. A southern planter, like WASHINGTON, or Jefferson, or Madison, or Taylor of Caroline, the famous author of *Arator*, has no other dependence, we will suppose, and it is generally the case, but his land and his labourers. He never touches the plough personally, but upon its products, his fortune depends. He is educated as a farmer, he has no other employment, unless when called into public service. Can it be pretended, that as he directs all the operations of his own farm, changes them according to his experience, and his constantly increasing information from books and practice, that he is not as good a practical judge of practical farming, as a New England farmer who conducts his own plough? Have these southern planters who never personally labor, shewn any defect of skill? Have they not varied their cultivation, introduced not only new modes of culture, but new plants which have doubled the productions of the United States? In my early days, rice and indigo were almost the exclusive productions of South Carolina. We have seen the culture of cotton substituted, and exports to the amount of forty millions of dollars take the place of articles which did not yield perhaps ten millions. Would merely practical labouring farmers have been so likely to make these speculative changes? We think not. Let us proceed to New England. What natural obstacles should prevent President Adams, or Col. Pickering, or Mr. Gore, or Mr. Lyman, or Mr. Quincy, or Mr. Brooks, or Mr. Parsons, or the late Lient. Governor Lincoln, or his son, from comprehending the principles of agriculture, or carefully and accurately weighing the facts which resulted from their experiments? I will grant, that as they may not *personally* labour, and may not as carefully superintend their labourers, they may not make as great profits as those who do, but they are as capable of keeping exact accounts of the comparative profits of one crop or another, to say the least. They can test, as well as the best *practical* farmer, the advantages of one mode of cultivation when compared with another. They can perceive the effects of different manures and of different crops. They can tell whether their cattle are or are not most economically supplied by pasturage or soiling. They can decide whether by cultivating corn only, or carrots, potatoes, Swedish turnips, and mangel wurtzel, they can have a greater surplus of hay, and support more stock. All these points, the theoretical farmer can decide as well as the others unless it be assumed that they are incapable of computing the lowest sums in arithmetic. But we do not mean to rest this question on this ground only. We assert, and mean to prove, that almost all the improvements of the agricultural art were the effects of the skill and industry of theoretical farmers, and that even the most familiar implements of husbandry now in so common use that our farmers believe that they always existed in their present state have been improved by the efforts of theoretical men. The plough of the Ancient Romans was a machine as different from ours as possible, and would excite the ridicule of the most ignorant farmer. Even the French farmers at this day have a most unwieldy plough, and their oxen draw this rude implement by their horns only. They have not yet learned the value of our yoke. Their hoes are most clumsy and inconvenient. Within three years a light hoe with

four steeled prongs has been introduced with us for digging potatoes, which is decidedly superior to the common one. Ploughs have undergone great changes and improvements chiefly by the inventions of theoretical men. The addition of the regulating wheel to the breaking up plough is found to be of great value. The progress of all these discoveries is slow, and nothing contributes to retard it, so much, as these occasional sneers at Theoretical Farmers. Gentlemen Farmers (if this term so unkind suits our friends better) are the Pioneers in agriculture in the same manner as mechanics in their workshops have been the pioneers in manufactures, and it would be as absurd to laugh at the barber, who introduced the Spinning Jenny in Great Britain which gave the first impulse to cotton manufactures, or at the American artist who invented the cotton gin, or at Fulton who first applied successfully the steam engine to navigation, on the ground, that the two first were not practical manufacturers, and the last not a practical navigator, as to contend, that President Jefferson's hill side plough was of no value, because he never turned over a furrow in his life.

Who was Olivier de Serres the father of French agriculture, or Evelyn the venerated author of the English Sylva, but *theoretical* farmers? Who was Duhamel the author of the best treatise on Fruits, and who contributed more than any other man to the present state of perfection of orchards, and of the finer fruits, but a theoretical man? Who has done the most in the present age to enlarge our knowledge of this branch of agriculture and horticulture? Thomas Andrew Knight, of Downton Castle, near Ludlow, who has added more new varieties to our fruits than any man living. We shall shew in the course of the present number that his zeal for the promotion of horticulture has been liberally extended to this country.

But it has been intimated that this central society had arrogated to itself merits, to which it was not entitled; that it had been tardy to do justice to the great and meritorious exertions of the Berkshire Society. This is unkind; we have always been prompt to acknowledge the early, efficient and intelligent efforts of that society. We have admitted that they were the first to give a spring to agricultural efforts by introducing the British and French system of public shows of cattle and manufactures. Still too much must not be claimed on this score. It was not an original thought. Many of us had visited the European shows, and the subject of introducing them had been discussed, and there can be no doubt, that long ere this, they would have been in full operation from the successful effect of European example. This is not said with a wish to diminish the merit of Mr. Watson, Mr. Gold, Mr. Melville, and Mr. Mackay, and the "other Gentlemen" Farmers of Berkshire. We know and acknowledge that they have done every thing in their power to promote an enlightened and improved course of agriculture, and surely they may be contented with this merit, without wishing to deprive other societies of their humble share in this common cause.

We most earnestly hope never again to see any invidious comparisons. It is much more easy to find fault, than it is to discover and propagate useful improvements. *We are all novices*, much more be-

hind the state of cultivation in the smallest State of Europe than our pride will admit. Either of the small Italian States, at least on the plains of Lombardy, or any district of the Netherlands could teach our best farmer that he knew but little of this important art. Let us all then be modest in our conscious ignorance and defects.

We have a few remarks to make as to the matter and manner of this journal. No men can be more sensible than we are of its imperfections. How can it be more respectable, when the whole State is so deficient in agricultural knowledge? Till within a few years, there were no books to inform us what were the modern improvements in more thickly settled and cultivated countries. Our whole library is still extremely meagre. Yet we are reproached with introducing articles which are above the capacity of common farmers. If it be intended as an intimation that we devote too large a proportion of this work to philosophical agriculture, we deny the fact; we always give the preference to homebred, practical essays and experiments. But we are not ready to admit that the introduction of rational and scientific speculations, such as those of Kirwan and Davy, is inexpedient. Massachusetts has scarcely a town which does not furnish educated men. Knowledge must be first communicated to them, and from them it will inevitably reach their less informed neighbours. We have devoted many pages to horticulture, to the best mode of raising vegetables and fruits for the table, and if we wish to rise one grade above mere subsistence, we must continue so to do. We shall devote a considerable portion of our journal to horticulture, orchards, and fruits. Massachusetts has fourteen large towns containing a population of one hundred thousand souls. When men are thus collected in great masses they will require the innocent luxuries of the table, and there are none more so than vegetables and fruits. To supply this population of one hundred thousand souls, fifty thousand at least must be employed. Thus nearly one third of the State are interested in acquiring horticultural information, in being taught to manage their gardens. Would you always continue in your present state of ignorance on these subjects? Shall it be said that from June to September in our scorching summers, a traveller may traverse Massachusetts from Boston to Albany, and not be able to procure a plate of fruit, except wild strawberries, blackberries, and whortleberries, unless from the hospitality of private gentlemen? It is painful to reflect, that every cottager in Flanders, Germany, Holland, and England, is better supplied with summer fruits than our most opulent farmers.

This almost utter neglect of cultivating summer and winter fruits, materially injures the health of our farmers. How mortifying to see the finest climate for the cultivation of the apple, so undervalued, that many of our farmers are obliged to slice up their summer fruit, and suspend it in the front of their houses to dry, in order that they may have a comparatively insipid and tasteless provision for winter! Yet such is too often, I may say too generally, the case.

The greatest benefit, however, which our farmers would derive from an attention to gardening, would be the acquisition of habits of care and neatness, which would be transferred to their farms.

If each farmer would devote two acres to a garden, and to finer fruits, he would be compelled to be more careful in trimming his trees, in sowing his seeds, in keeping them free from weeds. The habits thus formed would extend throughout his estate. We see this effect in farmers near the great towns; they learn to be their own grafters, and pruners, and their care of their general culture keeps pace with their progress in gardening.

But perhaps it will be replied, we cannot afford the time; it will be too expensive. What! cannot our farmers afford as much time as the common laborers of other countries who work from sunrise to sunset for from thirty to forty cents per day? No, this is not the real difficulty. It is, that the ease of getting an ample support in this country relaxes our exertions. But the progress of manufactures and population will soon bring about other habits, and we hope within a few years to see nurseries of the cherry, and the peach and the pear, as well as of the apple, in all country towns,—though we think, not only that the last is far the most important, but that it is with that, our internal improvements must commence. Till every farmer can lay up his ten barrels of excellent winter apples for his *own use*, we shall not expect much progress in other branches of gardening.

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### A. D., 1824.

Hon. William Prescott was elected a Trustee in the place of Mr. Perkins.

At the Annual Meeting it was voted "In the event of a vacancy in the Board of Trustees during the year for which they are elected, the Board shall have authority to fill such vacancy."

Admiral Sir Isaac Coffin presented to the Society a full-blood Hereford Bull and a full-blood Heifer of the same breed, raised by Sir J. G. Cotterel, Baronet; also, a full-blood Heifer of the short-horn breed, raised by the celebrated improver of that breed, John Wetherell, Esq., with their several pedigrees. They were taken in charge by the Trustees.

A letter was read from the Trustees of the Dummer Academy, proposing to the Trustees to take the patronage of the Dummer Academy for an Agricultural institution. The subject was referred to a Committee who made the following Report:—

"The Trustees fully impressed with the importance of such an institution, appointed a Committee to examine the farm owned by the Trustees of Dummer Academy, and to confer with

them on the best mode of carrying the plan into effect. The Committee reported that they thought the farm very well adapted to the purpose, that the Institution at Byfield offered great facilities for the execution of such an experiment, but that in their opinion it would be more desirable that its immediate management should be in the hands of the Trustees of Dummer Academy, and its supervision in such persons as the Legislature might think best ; such, for example, as the Officers of the several Agricultural Societies in the State. The Trustees of the Massachusetts Agricultural Society have respectfully presented their views of the importance of such an institution, and their hope that it will meet with the approbation and be deemed worthy of the patronage and aid of the public. We most sincerely hope that the application will receive the attention and favor which its high importance demands. It is, we are aware, new—it is an experiment.—So *have been*, at first, all the improvements, from the time when men were clothed in sheep skins, and subsisted on wild honey and acorns. It seems to us time, that those who cultivate the ground, should, now that they are restored to their rights and dignity in the State, receive their fair share of public patronage and favor.

“ Establishments for the advancement and perfection of their art should be made, and all the advantages of education, which their occupation requires, should be extended to them. As they have few or no opulent men among them who can found schools and colleges for them, let the public, who never forget them when money is to be raised, or battles to be fought, not overlook them when they ask a fair share of public bounty in return. They constitute the strength and will forever prove the safeguard of the State.”

The Annual Show took place as usual. The number of entries, however, for premiums, was much less than in former years ; though the animals, especially the dairy stock, was an improvement perhaps upon any previous year. This diminution in the number of competitors was caused principally by the increase of county agricultural societies, each drawing to itself the stock kept in its vicinity.

A. D., 1825.

No change took place in the Board this year.

The records bear witness again of the munificence of Admiral Sir Isaac Coffin, in sending as before, free of expense, to the Society, a stallion and a mare "of the Yorkshire Cleveland Bays," the most highly approved breed in England, for the coach and the road.

The Trustees made a new arrangement this year, with reference to the Annual Show. The usual public ceremonies were dispensed with, on account of the time they occupied, which could be more profitably spent by the various committees in awarding premiums. The annual address was likewise dispensed with, the proceedings being closed by an extemporaneous address by the President of the Society. By this arrangement the principal business was transacted on the first day, leaving time also for a sale at auction of cattle and other objects presented at the show. "Hitherto the sale being on the second day, not only obliged the owners of animals and of goods intended to be sold, to remain at great expense to attend the auction; but as the collection of persons who might become purchasers was much smaller on the second day than on the first, many if not the greater part of the benefits proposed by this fair were lost!"

The exhibition of fat cattle was excellent; "There were no less than thirteen animals, weighing from 1673 to 2319 pounds, and from five to seven years of age. In every case but one they had been inured to hard labor, and in every case, the *expense* of feed in fattening was far less than English writers give as the average cost of fattening in England. Their food had been generally what is called cob-meal, that is the corn and cob of Indian corn ground together."

A letter from Mr. Pomeroy was received stating that Mr. Dabney of Fayal had sent, for the use of the Society, a present of another quarter-cask of wine, and it was voted (cider, beer, wine and other similar beverages not then being proscribed by law) that the thanks of the Board be presented to Mr. Dabney for his expression of generous interest and ready co operation to promote the objects of the society.



A. D., 1826.

Hon. Josiah Quincy retired from the Board and Jonathan Amory, Esq. was elected to fill his place as one of the Trustees.

The publication of the Society's Journal, heretofore semi-annual, was made annual.

A Committee was appointed to sell and dispose of all the animals belonging to the Society, at private or public sale at cattle shows, the object being to disseminate the stock throughout the Commonwealth.

The Society's gold medal of the value of fifty dollars, was presented to Thomas Andrew Knight, Esq. of Downton Castle, England, as a tribute to an eminent philologist,\* and a liberal benefactor to the new world.

The Committee on Agricultural Experiments made their report. There were only four applications for premiums in this department, owing to the singular weather of the past summer.

The following letter was written by one of the Trustees, Mr. Welles, for the Journal. The subject is one of interest to all.

Boston, Feb. 1, 1826.

*To the Corresponding Secretary of the Massachusetts Agricultural Society.*

The appendix promised to the remarks made in the preceding numbers of the Agricultural Repository as to the age and peculiar circumstances of the Orchard and Forest, have been submitted as to the former. Those on the Forest now follow.

It may be thought somewhat too excursive for the object and character of this Journal, which aims at improvement in annual crops, or more immediate practical results, to look so far back, and with too little certainty, for the laws which govern vegetable life, that we may be instructed for the future.

But the reign of this monarch of the vegetable kingdom extends through so many generations, and is yet so undefined, that we are prompted to inquiry and research by something more than curiosity.

It is surprising what a degree of uncertainty generally exists as to the age of Trees beyond a given period. It is but very seldom that any corporate or other records occur that can be satisfactorily relied on. In general they are presumed to have been set out when the

\* This vote implies an evident confounding of two brothers, Richard Payne Knight and his brother Thomas; the former a celebrated classic scholar, known as *Grecian* Payne Knight, and the latter the most eminent horticulturalist of his day.

house was built near which they stand, or by tradition, which is liable to great inaccuracy, by some predecessor far removed. In some instances which will follow, a sufficient degree of accuracy has been arrived at. Others are left to inference, with such light as could be had on the subject. Amongst the instances best ascertained are two valuable Elms, lately standing before the house in Natick, formerly occupied by the Rev. Oliver Peabody, the successor of the celebrated Elliot, the Indian Apostle, so called. The latter made only occasional visits, though so acceptable to the Indians here placed, as to have received many testimonials from them, besides the orchard before mentioned.

Mr. Peabody was settled in the ministry to the Indians in Natick, in the year 1722, and it has often been told me by his daughter, (some time since deceased,) as well as by others, that a deputation of Indians came, one bearing two Elm trees on his shoulders; that they presented themselves and requested permission of their minister to be allowed to set out those trees before his door, as a mark of their regard, or as the *Tree of Friendship*.

These trees flourished for about ninety years, when the larger one was stricken by lightning, and soon after failed. The other is in a state of decisive decline. These measured, one foot from the ground, about 21 feet, and in the smallest part, for 14 feet up, 13 feet. The growth was about  $1\frac{1}{2}$  inches per year. The Rev. O. Peabody died in 1752, after 30 years' ministry.

In 1753 the Rev. Stephen Badger was settled as the successor of the last mentioned gentleman. A like request was made by the Indians, and the same ceremonies took place in planting the Trees of Friendship before the door of Rev. Mr. Badger. These trees are now in full vigour, having been set out 73 years. They are about 15 feet in circumference, near the ground, and nine feet above in the smaller part, and have given, in circumference, nearly  $1\frac{1}{2}$  inches growth a year.

The Elm attains a great size in lighter soils, and on plains, commons, highways, &c. Cambridge has produced several that have been remarkable; there is one on the common that measures, near the ground, about 16 feet, above, 13 feet; another spreads to 22 feet, and is, above, 12 feet.

There was in the College Yard a very fine Elm, which was unfortunately destroyed, as is said, by the great quantity of pickle thrown about it when our troops occupied the colleges during the revolutionary war.

Of another, Professor Sewall in his Eulogy on Dr. Winthrop thus speaks: "Under a venerable Tree, lately standing on our common, Governor Winthrop was wont to call together his little senate."

In Framingham there is one in the highway near the house of Mr. Haven, set out by his father about 90 years since. It measures, a foot from the ground, 20 feet; it is of great height, and is, for 10 feet above, 12 feet.

There are several more in Framingham, Stow, &c. of great beauty, which nearly correspond in measure, being near the ground about 18 feet, and above, about 13 feet.

In Lancaster there are many much admired Elms—two of which measure on the ground, 19 feet. That by the house of Wm. Stedman, Esq., set out by Col. Willard, is of great beauty. It retains its size far up about 15 feet.

In Essex several are spoken of. One which was cut down in Salem not long since, it is there thought would outdo all competition. Another on Mr. Crowninshield's farm measures, one foot from the ground, 22 feet; four feet above, 14 feet.

There are two fine Elms on Mr. Lowell's estate, in Roxbury, one of which spreads remarkably near the ground, to 27 feet, and is above about 18 feet.

There is a remarkable Elm Tree about three miles from Providence, as to which the Marshal of Rhode Island, the late E. Dexter, Esq. wrote me: "I have measured the Elm in Johnston, as you requested. It is, three feet from the ground, 21½ feet, and holds nearly that size for 12 feet. Mr. King, the owner, informed me that it was computed to contain 12 cords of wood."

Of the trees which have excited notice in this city there is no certainty as to the age of those in the Mall, on the border of the Common. But of those in what is called the Short Mall, east of the burial ground, Major Bumstead states, "That in the year 1762, the planting of the trees in Common street took place by Major Adino Paddock and John Ballard. These trees, several of them, measure about nine feet at four feet from the ground, and give a growth of over 1½ inches in circumference in a year. They are what we here call the English Elm.

Liberty Tree, so called, stood at about 50 feet from the corner of Essex street. It was a fine majestic tree, overshadowing the house at the corner, of the proprietor Mr. Elliott, a bookbinder. In this building, then plastered and of antique form, but now changed in its exterior, was a Hall, large for the times, of about 20 feet square, where the Whigs used to assemble. These meetings imparted to the tree a great degree of notoriety. As early as 1765 a sort of effigy of the Earl of Bute was suspended therefrom. Afterwards Mr. Andrew Oliver, who was stamp master, made his recantation under it. Notices were placed thereon, and many public acts and ceremonies were here had, as the journals of those times will more particularly show.

The tree near Castle street has been often remarked upon. It was lately prostrated by the axe to make way for a block of buildings. It measured at two feet from the ground about 13 feet, and by counting the rings would be deemed about 110 years old.

But, after all our research, the *Elm of Boston Common* overtops its race, and stands pre-eminent in this neighborhood at least. It is a beautiful and finely proportioned object; near the ground it measures 23 feet, and about three feet above 20 feet in circumference. There are many rumours as to the setting out of this tree. Amongst the most probable there is one that an ancestor of Governor Hancock's family, Deacon Henchman, was the individual who conferred this benefit on the public.

In closing these notices of the Elm, it may be considered not improper to notice a publication stating the measurement of the Elm in Hatfield as of 34 feet in circumference at two feet from the ground, and 24 feet 8 inches above, with a supposition that it was the largest tree in New England. The Gazette of Northampton states that there are several Elms which would compete therewith in that place, measuring 21, 22, and even 25 feet, and that one is said to measure 28 feet at some distance above the ground. If these are given correctly, they are of extraordinary magnitude.

The Chestnut, though it is not thought to compare with the Elm as an ornamental tree, may yet vie with it in size, and is of more value for timber. The measure of three only will be given. One in Holden is at the ground 21 feet, and narrows but little above. Two in the lot of Mr. Valentine, in Hopkinton, one is  $25\frac{1}{2}$  feet, and above  $17\frac{1}{2}$  feet. The other is at the surface 23 feet, soon dividing into separate limbs.

The Oak is in all probability the most long lived of the forest. In the lot in Dorchester, given by Gov. Stoughton for the benefit of college education, to Dorchester scholars, I have measured several white oaks, which are from 18 to 20 feet circumference, and in one of them counted upwards of 200 rings, indicating as many years. The black oak has been found to attain about the same size.

I close with the dimensions of the Hartford White Oak or Charter Tree, so often alluded to. It is at the ground 36 feet, and in the smallest part 25 feet. The manner in which the Charter was concealed in it is matter of history and before the public.

I have in the paper on the forest said that the time when trees were most advantageously cut was when the period of quickest growth is over.

I shall be gratified if what has been submitted conduces to the better management of the woodlot. Or if by showing how our commons, highways, and pleasure grounds have been adorned and made interesting by those who have preceded us, I can excite or strengthen any efforts to the promotion of objects of such utility.

I am, sir, respectfully yours,

JOHN WELLES.

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A. D., 1827.

Mr. Prince was succeeded as Treasurer by John Heard, jr., Esq., and John C. Gray, Esq. was elected Trustee in the place of Dr. Dexter.

The Annual Show this year was confined to one day, which is thus briefly noticed in the Record Book of the Society.

“ It having been announced by the Committee of Arrangements, that the proceedings which had previously occupied two days, should all be held in one, the Committees immediately proceeded to their respective examinations, made their reports, and at two o'clock, after a preliminary address from the Chair, the premiums were declared by the Assistant Recording Secretary, and after votes of thanks to the Marshals, &c., the Society proceeded to the dinner provided at the hotel, and concluded the labors of two days in one very successfully.”

In addition to the usual premiums for the year, the Trustees offered one hundred and fifty dollars for the best and most effectual mode of extirpating the worm from the locust, if it can be made effectual and economical ; also, fifty dollars for the discovery of some new and effectual means of preventing the ravages of the borer in the apple trees, and one hundred dollars for the best plantation of white mulberry trees. This last premium was offered, in consequence of the great attention which the subject of raising silk was then receiving.

General Coffin presented to the Society four rams and three ewes of the celebrated “ Devonshire Nott Sheep.” One ram and ewe was sent to the Worcester County Society and one ram and ewe to the Hampshire Society.

The periodical publication of the Society's Journal was discontinued after the July number of this year, (1827.) The next number was not issued until 1830, for the reason stated in a succeeding number, published in 1832. “ It was owing to the rapidly increasing circulation and growing value of these (agricultural) newspapers, that the Trustees of the Massachusetts Agricultural Society have been induced to suspend, for some time past, their publications. The newspapers seemed to them to supersede the necessity of their exertions, while their publications might seem in some degree to check the subscriptions and circulation of these more useful means of instruction. The Trustees were, however, induced to issue the present number, because the length of the reports of their committees, and the importance of that upon farms particularly, seemed to require this change. They could hardly expect that the New England Farmer should devote so much of its columns to the reports of

any single society ; and it moreover seemed to the Trustees to be expedient, that their reports should be presented in such a form, as that those, who might wish to preserve them, might add them to the former volumes of their Journal."

The publication of the reports on the cattle show, upon crops, experiments, &c., resulted in the establishment of the present valuable abstract of the returns of all the Societies, first under the direction of the Secretary of State, and now, by the Secretary of the Board of Agriculture.

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### A. D., 1828.

Hon. Thomas L. Winthrop was elected President in the place of Mr. Lowell, whose activity and zeal for many years in the cause of agriculture and horticulture, are manifest on every page of the Society's Transactions, and whose services were still continued as Corresponding Secretary, in the place of Mr. Sullivan, who remained in the Board as a Trustee. Col. Thomas H. Perkins was elected Second Vice-President.

A Committee was appointed to co-operate with other Agricultural Societies, in obtaining a continuation of the grant for premiums from the Legislature, and the Treasurer was empowered to borrow, if necessary, five hundred dollars, to enable him to pay the premiums to be awarded at the show.

In reference to the subject of State aid, the Trustees, in their report of the proceedings at the Brighton Show of October, 1827, say :

FROM the commencement of the annual cattle show at Brighton, it has been the invariable practice of the Trustees of the Massachusetts Society for promoting agriculture to publish, in their *own* journal, all the reports of the committees appointed to award premiums. Indeed it is the practice of all the European Societies. The French society for the encouragement of the arts, and of agriculture, publish a volume of 300 pages containing all the details of their triennial exhibition. The uses and benefits of such a publication are too obvious to require elucidation. It furnishes in a more permanent form, than

any newspaper can secure, a history of the progress of art, of itself curious and interesting. It affords the best evidence of the activity and beneficial effects of the society. It is the best reward, which can be offered to the intelligent and successful cultivator, or mechanist, often of much greater value to him, than any pecuniary premium. Hence we invariably find, that inventors of useful implements are very anxious to have their inventions favorably spoken of, even if they are judged not to come within the scope of our premiums.

Some persons may think, that the publication in one newspaper is sufficient, and that the pages of our journal should not be occupied by matter *once* published in *another* form. We think otherwise; our journal is taken by many, who do not, we are sorry to say, take the valuable paper, the New England Farmer, in which our reports are first published. Such persons, having paid for our journal, think they have a right to possess the proceedings of our board. Others, who take the New England Farmer, and who are possessors of complete sets of our journal may prefer to have these proceedings in that form, which they may think more convenient for preservation. There are many persons who take our journal, in *other* states, who do not take the New England Farmer.

These reasons have satisfied us, that the course we have adopted is a proper one. We could, indeed, withhold the publication of our reports from the public journals; but besides that such a course would be churlish, or at least ungracious, the competitors would be dissatisfied with such a delay. We would hazard another remark, that there is a too strong disposition in *all* the editors of public journals to decline copying from each other. The public, in consequence, lose a great amount of interesting information. Instead of the result of many intelligent minds, you obtain (if you take but one or two publications) only the thoughts and the labours of the one or two, to which you subscribe. Our rule is different. We select from all sources, what we think interesting in them.\*

For example.—The American Farmer is a very interesting work, more adapted to be sure, to the state of agriculture in the middle and southern states than our own. Few farmers in this state ever see it. Yet there are often interesting discussions in that able journal, which would be read with pleasure and profit, by that class of our practical farmers, who have not an instinctive dread of knowledge, or an unhappy contempt for all, who unite reading with practice. There are two other works of another description, the Memoirs of the New-York Agricultural Society, and of the two Pennsylvania Societies; both of which are full of interesting matter. We avow, that we feel no such pride of authorship, as to fill our journal with our *own* remarks, when we perceive, that another work seldom or never seen by our citizens, contains more valuable materials than any which we could, at the time, furnish.

In this connexion, we, with unfeigned respect, and with that submission, which as good citizens, we are bound to cherish towards the government, which protects us, would beg leave to advert to a proposition, made in a former Legislature, to repeal the law affording a patronage to the Massachusetts Society for promoting agriculture.

Unquestionably, it is not only the right but the solemn duty of the Legislature to withdraw its support from any institution, which it may have patronized, whenever it shall discover that its bounty has been of no, or of little public value, or if that bounty has been misapplied. In the year 1792 the Legislature saw fit to incorporate a body, comprising members from every part of the state, including Maine, for the purpose of fostering the interests of agriculture, and of affording to a class of citizens, comprising three fourths of the whole population, the means of knowing, not only the improvements in their art, which should be made in Europe, but the *local* improvements made by skilful and ingenious farmers in our own country. The extent of the patronage amounted to a grant of a township of Eastern lands, then worth in the market about 2000 dollars, and the payment of the expense of printing their proceedings, which for many years did not exceed two hundred dollars per annum, equivalent to *half of one day's* pay of the members of the Legislature. When our society became more active, and published two numbers a year, it amounted to four hundred dollars a year. For this trifling sum, the Massachusetts Society for promoting agriculture, furnished from 400 to 600 copies to the members of the Legislature, gratis, and thus enabled them to carry home to their respective towns, the result of the labors of the Society, and thus to spread them throughout the state. It may be said, however, that they were of *no value*. It does not become us to say, that they were; but we may be permitted to state the facts, that our journals have been subscribed for, by many citizens of this state, and of other states, and of the British Provinces adjoining to us; that they have been spoken of with great commendation in this country and in Europe; that they have been preserved and bound up by hundreds of individuals, and that they, in fact, contain, as great a mass of information from practical farmers, on the great subjects of agriculture—on cattle—the making of butter, cheese and cider, on *general* cultivation, and on horticulture, as can be found in any equal number of volumes. That errors have been often found in them, and incorrect opinions advanced is true, but it is not more true, than it is of other miscellaneous journals. The only way of eliciting truth is a free discussion, and if one writer errs, ten are found to correct the error. The Massachusetts society for promoting agriculture are not benefited by the grant in question.

The only effect of withdrawing it, would be, to oblige them to withhold an equal amount of premiums, which they now grant to every part of the state. Three fourths of their premiums are dispersed in counties not contiguous to the capital. If the agricultural interest are convinced that their art *cannot* be improved, or is *not* improved by our efforts, or if they think, that the small bounty they now bestow, is productive of less advantage than the diminutive sum, which they pay, they *ought* to withhold it, and we shall cheerfully submit, and rely upon our own diminished means, to do as much good as we can. We are free to say, however, as we have a right to say, that the policy of the proposed measure is at least questionable. We are aware that these remarks will be too late to affect in any way (even if they deserve it) the decision of the Legislature; yet they may pro-



duce some effect on *public opinion*, and at some future period, induce the Legislature to grant *something* for that great body, who pay, and who, by their industry, contribute so much to the strength and prosperity of the state.

The Massachusetts Agricultural Society can say *something* in their own behalf. While our two public ministers, Livingston and Humphreys, are entitled to credit from the introduction of merino sheep, it should be recollected, that the Massachusetts Society was the *first by its premiums* to encourage their introduction, and thus destroyed the monopoly, which these gentlemen, for many years, enjoyed. In the same manner, they encouraged the introduction of long woolled sheep, and they have been the organs, through whom many other fine animals have been introduced into the state. To agriculture, they have been of no small service, in introducing root culture, and to horticulture, they humbly believe, they have rendered invaluable services, by introducing many culinary plants now in common use, and deemed indispensable in the great markets; while they have added a long catalogue to the mean list of fruits, which Massachusetts possessed thirty years since. Still, if the Legislature esteem these efforts of less value, than the small annuity, which they commit to them, as public stewards for the general welfare, they will never hear a word of complaint from this society.

The result of the exertions of the friends of the Society, was to extend by the Legislature the act of 1819, for the encouragement of agriculture, for the further term of five years.

It was voted that the Committee on Eastern Lands be authorized to receive, if they think best, a deed of half a township, granted where a whole one was claimed, and also to take one already surveyed or not, at their discretion.

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## A. D., 1829.

Hon. Israel Thorndike and Col. Thomas H. Perkins retired, and their places, as First and Second Vice-President, were supplied by the election of Hon. Peter C. Brooks and Hon. John Welles; Dr. James Jackson and Hon. Israel Thorndike were elected Trustees.

One of the subjects of discussion before the Committee on Agricultural Experiments, was the propriety of awarding a premium and withholding from the public, the name of the person

to whom it was given. It was decided that it would be proper to do so. It is doubtful whether such a measure, however, is satisfactory to the public, who naturally suspect the impartiality of the award, not knowing the receiver of the premium.

A letter was received from Dr. Porter, giving an account of his discovering of a new grass, which with the advice of Dr. Torrey, of New York, he called the *poa elongata*.

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### A. D., 1830.

In the Board of Officers this year, Richard Sullivan, Esq., was chosen Corresponding Secretary, in the place of Hon. John Lowell, and Hon. Benjamin Gorham was chosen Trustee, in Mr. Sullivan's place. Mr. Gorham declined accepting.

A Committee was appointed to consider the expediency of changing the mode of premiums for stock, and altering the period of the show from annual to biennial, triennial, or even to once in four or five years. The Committee subsequently reported, that it would be best, in their opinion, to omit holding the show the ensuing year.

A communication from Col. Jaques was laid before the Board, requesting aid in the purchase of a farm, to be carried on as an experimental farm, both in the cultivation of land and the rearing of stock. The Committee to whom the matter was referred, recommended the granting the request, and after full discussion the report was accepted, and the sum of five thousand dollars was ordered to be subscribed.

Hon. Thomas L. Winthrop presented a new seal to the Society, to replace the one which had been burnt.

At a meeting of the Trustees in March, 1831, several gentlemen of the Board of Visitors of the Massachusetts Professorship of Natural History being present, viz.: Hon. Josiah Quincy, President of Harvard College, Dr. Bowditch, President of the Academy of Arts and Sciences, and Mr. Lowell, of the Committee on the Garden, the subject of relinquishing the duty of

visitors was discussed, the grant of the Legislature in aid of this object being now withheld ; and the whole matter was referred to a Committee, with instructions to confer with the President and Fellows of Harvard College, in relation to it. At the same meeting, the sum of six hundred dollars, received by the Trustees from the Commonwealth, was paid over to the College, for the use of the Botanic Garden.

Subsequently the Committee reported in favor of relinquishing the office of Visitors ; the report was accepted, and the duty of visitation devolved in course, and became vested in the President and Fellows of Harvard College.

The assessment on becoming a member of the Society was reduced from five to three dollars, there being no regular publication of the Agricultural Journal.

The address at the annual show was delivered by John C. Gray, Esq. He gave a sketch of the progress which Agriculture had made and was making in the State, particularly in relation to our *domestic animals*, which was mostly attributable to the establishment of Agricultural Societies, exciting farmers to the introduction of improved breeds and stimulating them to improve our own, by better care in rearing, as well as better selection in breeding.

In looking over the Reports of the Committees, we find the stock from the bulls Holderness, Denton, Cælebs, and other imported stock, taking a large proportion of the premiums.

For the *one hundred dollar premium*, for butter, there was a large competition, and it being open to all the States, there were thirty-five entries from five different States. It was awarded to Mr. Henry Sprague, of Charlton, for six kegs, with flat hoops, and a second premium of fifty dollars to Mr. Moses Newell, of West Newbury. The butter was afterwards sold at auction, varying in price from 14 cents to 36 cents, the premium lots bringing the highest on the list.

The Report of the Committee on Farms, which was drawn up by Mr. Prescott, in his usual clear and methodical manner, is well worthy of preservation as a *model report*. In relation to the difficulties attendant upon the award of premiums on farm management by the Trustees, from the impracticability of an

actual inspection of farms over the whole State by any one committee, he says, "To remedy these disadvantages as far as possible, the Trustees accompanied their offer of premiums with the requirement of a full and particular statement, by every applicant, of the number of acres in his farm, the quality of the soil, the proportion of tillage, mowing and pasture, his manner of making manure, the quantity and manner of using it, the rotation of crops he found most successful, and the quantities of these crops, and other particulars specified in their publication in January last, announcing the premiums they proposed to give. These statements it was intended should, like specifications annexed to patents for manufactures, be so full and particular, as to enable any intelligent farmer, who should read them, to adopt the whole or so much as he thought applicable in the management of his own farm. Applications it was expected would be numerous, and the statements accompanying them, when published, it was thought, would impart to agriculturalists information adapted to their case, and on which they might safely rely.

"By these they might learn the opinions and practice of skilful and practical farmers, who cultivated the same kind of soil, and paid like prices of labor with themselves. The high character of our respectable farmers for veracity and fairness, was considered a sufficient pledge against any intentional misrepresentation or unfairness; and if it should happen that some of the statements should be a little exaggerated, it was thought the evil could not be great; since at the worst, it would be the statement of a good farmer, of what he considered the best way of cultivating such land, with perhaps a slight exaggeration of his crops. Even this might be more safely trusted, and be more useful, than a mere theoretical essay of an inexperienced man."

The first premium was awarded to Mr. Erastus Ware, of Salem, who rented the Pickman farm.

A. D., 1831.

Hon. John Lowell took the place of Dr. Jackson, in the Board of Trustees, and S. G. Perkins, Esq., was elected in the place of Hon. Benjamin Gorham.

The President reported progress and left copies of the papers, in relation to the claim for half a township of land in the State of Maine.

There was no show held this year, being the first omission of one since the commencement in 1816. In announcing the resumption of the annual show for the year following, after speaking of the benefits which had accrued from their establishment, the credit of which they accord to the Berkshire Society, whose first show took place in 1814, the Trustees say, "But having set the example, encouraged the farmers by these exhibitions, and seeing societies established throughout the State, we doubted whether any future exhibitions at Brighton would any longer be of use. The fatigue, trouble and expense to the Trustees, and the diminution of their funds, would of course lead them to discontinue them, as soon as any doubts were suggested as to their utility. Such doubts met them from many sources, and they suspended them in obedience to these suggestions, and in the hope that the suspension of their public shows would have the tendency to increase the exhibitions of other County societies, which had sprung up in every part of the State."

Although there was no show, the Trustees offered nearly two thousand dollars in premiums for farm management, dairy products, field and forest culture, agricultural inventions and improvements. The premiums for butter and cheese alone, amounted to five hundred dollars, bringing out seventy competitors. Luther Chamberlain took the first premium of one hundred dollars on butter.

## A. D., 1832.

The only change in the Board this year was the election of John Prince, Esq., as a Trustee, in the place of Mr. Perkins, who had resigned.

The omission of the show the previous year, gave great dissatisfaction to the people of Brighton, and the southern counties where societies had not been established. The Trustees therefore decided upon having one as usual this year, limiting it, however, to one day. It was not to be concealed, that though the premiums were exceedingly liberal, the competition was growing less, and narrowed to a much smaller district. At the same time, the Trustees were reluctant to abandon what had become, as it were, an institution and identified with the labors of the Society.

The show this year, though in many respects satisfactory, was not up to the standard of past experience.

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A. D., 1833.

Hon. Daniel Webster, and Henry Codman, Esq., were elected in the place of Mr. Parsons, resigned, and Mr. Prince, who declined a re-election as Trustee.

A pamphlet on certain agricultural machines\* was received from Mr. Fellenburg, of Hoffwyl, in Switzerland, and a translation of it having been made, the President and Mr. Prescott were appointed a Committee to examine the same, and if in their opinion it would contribute to the advantage of Agriculture, to order one or more, to do so, and to print the translation in the New England Farmer, or otherwise.

The Treasurer was authorized by vote, to pay any bill not exceeding twenty dollars, at his discretion, without a formal vote of the Trustees.

Hon. Edward Everett delivered the address at the cattle show.

\* The character of the machines is not stated.

A. D., 1834.

Hon. John C. Gray was elected Recording Secretary, and Josiah Quincy, jr., Esq., a Trustee.

It was decided after several discussions, to omit the cattle show this year, and the premium list was accordingly arranged with reference to this omission.

The hall of the Rotunda over Faneuil Hall Market, was placed at the disposal of the Trustees, by the lessees, Messrs. Livermore and Kendall, for the examination, exhibition and sale of butter and cheese, under the direction of the Trustees, and in connection with their premiums offered for these articles.

A letter was received and read from Martin Brimmer, Esq., accompanied with some hybrid turnip seed, and a pamphlet brought by him from Scotland.\* With the thanks of the Society, a hope was expressed that other gentlemen, when traveling abroad, would follow his example, and bring back with them new seeds and fruits, and thereby promote the agricultural interests of the country.

After much negociation and many delays, the deed of half a township of land, in the State of Maine, was obtained from the State of Massachusetts, a full township having been granted to the Society, in aid of the Professorship of Natural History. Between the time, however, of obtaining the grant and receiving the deed, Maine became a separate State, and the public lands were divided between the two States. Several attempts were made to obtain the other half from the State of Maine, but they were ineffectual. The half township received from Massachusetts was sold, and the proceeds, \$15,000, were paid over to Harvard College, now become the visitors of the Professorship.

\* It was about this time that the turnip culture began to revolutionize the agriculture of Scotland.

## A. D., 1835.

John Heard, Esq., was chosen Corresponding Secretary, in the place of Richard Sullivan, Esq., and Henry Codman, Esq., Treasurer. Henry Codman's place in the Board of Trustees was filled by Hon. Abbott Lawrence.

A machine for sowing grain having been imported and placed in the hands of Mr. Phinney for trial, he reported favorably of it; also, a report from Dr. J. M. Whittemore, of Brighton, of good results from the use of Fellenburg's machines.

A bull and three cows, of the Ayrshire breed, were imported by the Trustees, at a cost of eleven hundred and seventy dollars.

The address at the annual show was delivered by Gen. H. A. S. Dearborn.

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## A. D., 1836.

The same Board was continued in office.

Measures were taken to ascertain the probable advantage in an agricultural point of view, of the culture of the beet for the manufacture of sugar.

A present of books was made to the Society, by the Agricultural Society of Caen in Normandy.

A letter was received from Rev. Henry Colman, suggesting the advantage of an accurate and full agricultural survey of every town in the Commonwealth, with a detailed report of the same. The communication was referred to Mr. Prescott, Mr. Brooks, and Mr. Heard, to act upon and to report in relation to it. This committee at a subsequent meeting reported verbally, that having been notified by the Committee on Agriculture of the Legislature, that a meeting would be held to inquire into the expediency of ordering such an agricultural survey, and the opinion of the Trustees of this Society being desired, they attended before that Committee, and stated their individual opinions, that such a survey would be advantageous to the agricultural interest of the State.

After some discussion, it was voted to be inexpedient to have a cattle show the approaching season.



At the request of the Berkshire Agricultural Society, it was allowed the use of the Ayrshire bull.

Among the premiums offered this year, was one of one hundred dollars each year, to the person, persons, or corporation who shall raise the greatest quantity of sugar beets, by the acre, or not less than two acres, which shall be manufactured into sugar, in the years 1837, 1838 and 1839, giving a particular account of the manner of sowing, cultivating, and gathering the beets.

A premium of the same amount was likewise offered to the person, persons or company who should, during the same years, manufacture the greatest quantity, and of the best quality of sugar from beets, giving a full account of the process of the manufacture.

The invested funds and cash of the society amounted, at this time, to twelve thousand nine hundred and fourteen dollars. There had been no increase of them for many years, the income of the society, as well as a part of the donations to it having been applied to premiums of various kinds, and very largely to the Botanic Garden. It was thought by many, that it was now time to attempt a new field of usefulness, by a systematic introduction of improved breeds of cattle. To do this, it required large outlays in the purchase and importation, as well as a continuous expense in the proper care of the stock after its arrival, consequently, for several years successively, the amount paid out in premiums was sensibly reduced, and a portion of the society's income was reserved and invested, with the view to more efficient action hereafter.

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### A. D., 1837.

The only change that took place in the Board this year was the election of Elias Phinney, Esq., in the place of Hon. Israel Thorndike. J. P. Cushing, Esq., was previously elected, but declined serving.

A vote was passed, that the Committee having charge of the Ayrshire Stock, be authorized to make such disposition of the cows and their progeny as shall give one calf to be the property of each Trustee who will keep a cow for one year, on condition that the same shall be raised, and the blood kept pure.

It was voted to hold a cattle show this year at Brighton. There was some discussion on the subject of returning to Government the money that was received, and not expended, for premiums. It was determined that it was not necessary to make the expenditure within the year, and the money was retained to be applied to premiums in the following year.

### A. D., 1838.

No change took place in the Board this year.

The by-law, requiring nine members to form a quorum, was repealed, and it was voted that any members of the Society who attended the meetings, should be authorized to transact business.

A communication to the President was read, inquiring if aid could be afforded to erect a monument to the memory of the late Thomas Green Fessenden, for many years the proprietor of the New England Farmer. The subject was referred to a Committee of three—Mr. Phinney, Mr. Codman, and Mr. Welles. Agreeably to the recommendation of this Committee, it was voted that the sum of one hundred dollars be used at their discretion, for the purpose above specified.

It was voted to pay to the Rev. Mr. Allen the sum of one hundred dollars, for his services as Agent of the Committee on Farms.

The Committee on Farms reported that, from the similarity in the description, culture, and results of the farms, for which the premiums were claimed, they were unable to give so decided a preference to any one, as to justify the awarding of the first premium. It was voted, therefore, that the Committee be authorized to distribute the whole sum—six hundred dollars—

offered in premiums to the best farms, among the claimants in gratuities to each, in such amounts respectively, as it may judge best.

It was decided to omit the cattle show this year.

Mr. Phinney was authorized to offer a premium of thirty dollars, as an inducement to a mechanic to construct, and introduce for the use of farmers, a sub-soil plough.

A letter from the Worcester County Agricultural Society was read, offering to this Board the use of pens and every facility in preparation, and for the care of animals, if they would grant premiums on stock to be exhibited at Worcester, in October. A similar request was made by the Berkshire Agricultural Society.

The sum of two hundred dollars, in accordance with these requests, was appropriated to be given in premiums at the cattle show in Pittsfield, and the same amount at the cattle show in Worcester.

Nine hundred dollars were distributed in various premiums, of which two hundred and sixty dollars were awarded in premiums for butter and cheese.

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### A. D., 1839.

Josiah Quincy, jr., Esq., was elected Recording Secretary, the office having become vacant by the death of Mr. Heard, and Dr. John C. Warren, in the place of Hon. Daniel Webster, who had withdrawn.

Mr. Codman exhibited samples of sugar, made from the beet by Mr. Duroy, with an offer from him to take machinery to any set of farmers who would offer him employment enough to return him his expenses.

Mr. Colman, the Commissioner of Agriculture for the Commonwealth, having represented to the Trustees, that, in his opinion, much useful information respecting the cultivation of the mulberry and the manufacture of silk might be obtained at

a meeting of the Silk Convention, to be held on the 11th of December at Washington, and having also expressed a willingness to attend if his expenses could be paid, which would probably not exceed sixty dollars, the Treasurer was authorized to pay that sum to Mr. Colman for that purpose.

The Committee on Experiments and Inventions recommended the award of the premium of one hundred dollars, to the Northampton Beet Sugar Company, for having manufactured sugar from the sugar beet in the greatest quantity and of the best quality, having made the statements that were required to accompany the application.

The year 1840 was made sadly memorable in the Society's annals, by the death of Mr. Lowell.

A gratuity of a silver creampot, of the value of twelve dollars, was awarded to Mrs. Blake, on the farm of Mr. Denny at Westborough, for a quantity of excellent butter. In all, the premiums for this year amounted to eleven hundred and ninety dollars; four hundred dollars being given to county societies for distribution; four hundred and fifty on farms, and the remainder for various other objects connected with agriculture.

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### A. D., 1840.

The Board remained unchanged this year.

The Committee appointed to attend the Essex Cattle Show were authorized and requested to associate with them two practical farmers, not of the Board, and to examine the animals and award the premiums offered by the Society to be given for the best stock exhibited at Georgetown.

The Committee on Farms were authorized, if members could not conveniently give their personal attendance, to appoint as substitutes, gentlemen residing in the vicinity of the applicant, or a general agent to examine and report upon the situation of all the farms.

It was voted to pay to the Rev. Mr. Allen the sum of sixty

dollars, for his services in examining farms in behalf of the Committee.

The Board subscribed for the Journal of the Royal Agricultural Society in England.

This year the Society lost an able and efficient President, by the death of Hon. Thomas L. Winthrop. The following resolutions were passed on the occasion by the Board:—

“*Resolved*, That the Trustees of this Society deplore, with sincere and deep sorrow, the loss which the public at large, and they in an especial manner, have sustained by the death of their lamented President, the Hon. Thomas L. Winthrop, who has been an active member of this Board more than two-fifths of a century, and had presided over it nearly a third of that period, with a dignity and urbanity peculiar to himself.

“*Resolved*, That the surviving members of this Board, with a melancholy pleasure, bear testimony to the ability, fidelity and zeal, with which their deceased associate and President discharged all his official duties, to his devotedness to the interests of this Institution, his ever courteous deportment, and the harmonious and friendly intercourse that uninterruptedly subsisted between him and themselves, during a long intercourse of years.

“*Resolved*, That the deceased, though not a practical farmer, was in their estimation well acquainted with the details, as well as the principles and most improved system of husbandry, and was ever ready to contribute his personal services and pecuniary aid, to encourage useful experiments in farming, or in any way to promote improvement in agriculture, and that in him the farmers of Massachusetts have lost an enlightened and liberal patron.”

The following premiums were paid this year:—

Joseph Wheeler, on farm,	-	-	-	-	\$ 75
Essex Agricultural Society, for premiums,	-	-	-	-	100
Middlesex do. do. do.	-	-	-	-	200
Prouty & Mears, 1st premium for ploughs,	-	-	-	-	100
Charles Howard, 2d do. do.	-	-	-	-	75
Abel Moore, 1st premium on Farm,	-	-	-	-	200
Paoli Lathrop, 2d do. do.	-	-	-	-	175

R. Winchester, well cultivated Farm,	-	-	-	75
W. Salisbury do.	do.	-	-	75
R. Converse, do.	do.	-	-	50
James Deane, communication on mulberry trees,	-	-	-	50

Vested funds of the Society at this time were \$15,200.

### A. D., 1841.

Hon. John Welles was chosen President, in the place of Mr. Winthrop, deceased. Hon. P. C. Brooks became First Vice-President, and Hon. William Prescott, Second Vice-President. Francis C. Lowell, Esq., and Hon. Levi Lincoln, were chosen Trustees.

The Committee on Orchards awarded the premium of fifty dollars, for the best orchard, to Mr. Randall, of New Bedford.

The Committee on Premiums were directed to consider the expediency of offering encouragement for experiments in the application of lime to the cultivation of grapes and vegetables, and for the general improvement of the soil.

Three hundred and seventy-nine dollars were paid to different county societies, to be awarded in premiums, besides the usual premiums on farms and crops.

### A. D., 1842.

The only change in the Board this year was the election of John A. Lowell, Esq., in the place of Hon. Levi Lincoln, who declined a re-election.

It was voted that the proposed plan of Rev. Henry Colman, late Agricultural Commissioner of this State, to visit Europe for the purpose of acquiring practical information in agriculture and rural economy, and by imparting the same to the public to extend the knowledge of agricultural science in this country, is

cordially approved by this Board. The Treasurer was authorized to subscribe for one hundred copies of the proposed reports of Mr. Colman, and that the proportion to be paid in advance be paid by the Treasurer, in accordance with the terms of subscription.

Dr. Warren, Mr. Gray and Mr. F. C. Lowell, were made a Committee to report on the expediency of investing funds of the Society in an experimental farm.

The premium of one hundred dollars for the best dissertation on Manures, was awarded to Dr. Dana, and another of fifty dollars to Mr. Asahel Foote, of Williamstown. These essays were printed and widely distributed, at the expense of the Society.

Mr. Colman being about to sail for Europe, the Secretary was requested to send him a copy of the votes passed as before stated, and to express the continued interest of this Board in his intended mission, confiding in his zeal and industry, and that his thorough and ample reports of the state and progress of agriculture in Europe, would contribute much to its advancement in his own country, and commending his enterprise to the friends of agriculture, wherever he may meet with them.

Two hundred dollars were contributed to aid the shows in Hampshire, Hampden, and Franklin Counties, and in Plymouth County, besides the usual premiums on farms.

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### A. D., 1843.

The Officers and Trustees of last year were re-elected.

The President, Mr. Welles, stated in a letter to Mr. Brooks, his examination of the sycamore trees, in a recent journey he had made, with the hope that he had discovered an insect, which might be the cause of their present diseased appearance. This letter was communicated to Dr. T. W. Harris. For Dr. Harris' reply, see *New England Farmer*, for June, 1843.

Mr. Codman was appointed the Committee to award on the claims for the best arranged model of a Farm Account-Book.

One hundred dollars was paid to the Hampshire, Hampden, and Franklin Society, to aid their exhibition. An essay on manures, for gratuitous circulation, was printed, besides premiums and pecuniary aid in circulating agricultural information—in all, to the extent of twenty-three hundred dollars, no money having been received from the State this year. The vested funds of the Society had increased to seventeen thousand and five hundred dollars.

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### A. D., 1844.

Hon. Abbott Lawrence was chosen Second Vice-President, in the place of Mr. Prescott, resigned. Mr. John A. Lowell also resigned, and the two vacancies in the Board of Trustees were supplied by Hon. David Sears, and William P. Mason, Esq.

The Committee for the sale of the Brighton estate of the Society, which was this year sold at public auction, reported that the gross amount of the sales was \$6,337.79. The Committee submitted the name of "Windship Place" for the estate, and it was adopted.

A premium of fifty dollars was awarded to C. Howard, of Hingham, for an improvement in the sub-soil plough.

Hon. William Prescott, one of the most efficient members of the Society, died this year.\*

A letter was read, from Mr. J. Breck, requesting aid in the purchase of land and establishing an agricultural school at Westborough.

Dr. Warren was requested to make inquiries, with a view to carry into effect the suggestion of the Committee, appointed to consider the expediency of offering a premium for an essay on

\* Descendant of Col. Prescott, of revolutionary fame, and father of William H. Prescott, Esq., the Historian. He was a distinguished lawyer, and universally beloved and esteemed for the purity of his life and the uprightness of his character. His farm was in Pepperell; he took great interest in rural affairs, and was a most laborious member of the Board, as his papers and minutes upon farms, stock, &c., abundantly testify.



the Diseases of Cattle, and also as to aiding in the expenses of a voyage to Europe of a medical student, to qualify himself to deliver lectures on the diseases of horses and cattle. Dr. Warren afterwards wrote on this subject to Dr. William Lawrence, then in Paris.

The Trustees concluded to omit the cattle show this year, and in lieu thereof, they voted to use the funds of the Society to an amount not exceeding two thousand dollars, for the importation of cattle of the Ayrshire and Devon breed, or any other that the Committee, or their agent, may think best, and in such a manner as the Committee may deem the most conducive to the interest of the public. One thousand dollars was, however given to aid the Worcester cattle show, besides other premiums.

### A. D., 1845.

No change was made in the Board of Officers this year.

A letter, with a volume of Gen. Washington's agricultural letters, being a fac simile of his handwriting, was sent to the Society, with a suggestion that the work would be useful as premiums. The Treasurer was authorized to procure thirty copies, and that three copies be given to each of the county societies, and that one be presented to Edward Everett, Minister to the Court of St. James.

The Committee having charge of the imported stock, reported that four cows and a bull of the North Devon breed, and four cows and a bull, of the Ayrshire breed, had been purchased and brought in good order to this country, and for the present they were placed at Lexington with Mr. Phinney. These were obtained at a cost of about two thousand dollars, originally appropriated for the purpose.

Some months afterwards, Mr. Phinney reported that the herd in his care was doing well. He also read a statement in relation to them, and in regard to the average produce of cows in the Commonwealth.\*

\* Mr. Phinney made a monthly report upon this stock until the period of his death.

Dr. Warren (of the Committee on the Diseases of Animals,) made a verbal report, that he had received an answer from Dr. Lawrence, whose early return to America would prevent his compliance with the wishes of the Board, and he recommended the purchase of an anatomical representation of the horse, which was capable of being taken apart.

Dr. Warren afterwards read a letter from Dr. Edward Brooks, who was willing and desirous to qualify himself to deliver a course of lectures, on his return from Paris; and the Committee were authorized to propose such arrangements to Dr. Brooks, as to induce him, in the study of his profession in Paris, to have reference to this particular branch, with a view to delivering lectures on this subject, after his return.

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### A. D., 1846.

Hon. John C. Gray was elected President in the place of Hon. John Welles, resigned. Elias Phinney, Esq., was chosen Recording Secretary. Hon. Daniel Webster was chosen First Vice-President in the place of Hon. P. C. Brooks. The two vacancies in the Board of Trustees, were supplied by Hon. Daniel P. King of Danvers, and Thomas Motley, Esq. The latter having declined, Hon. Martin Brimmer was chosen by the Trustees.

A Committee was appointed to select and purchase six cows of the best qualities, to cross with the imported stock; and for this purpose an appropriation of five hundred dollars was made. Three cows were purchased at the respective prices of \$65, \$70, and \$100, and at the sale of Mr. Randall's Ayrshire stock, at New Bedford, two others were purchased, Gowan and Swinley, and added to the herd.

A copy of the "Farmer's Dictionary," was sent to the Society by Messrs. Harper & Brothers, to be given to the person who should gain the first premium on corn.

Mr. Gray presented an ear of Oregon Corn, containing twenty-one rows.

A letter was received from P. Lund Simmons, Editor of the Colonial Magazine, respecting a species of grass called Angola grass, and a Committee was appointed to obtain some of the seed for experiment.

A letter was received from Mr. Bosson, proposing to establish an Agricultural Museum.

Dr. Warren, at the invitation of the Legislative Agricultural Society, delivered a lecture upon the horse, explained its structure, and illustrated it by a dissection of the imported artificial skeleton of the horse.\*

The publication of "An Abstract of the Returns of the Agricultural Societies in Massachusetts," by the Secretary of State, under the act of 1845, was commenced. The abstract was prepared by Allen W. Dodge, Esq., the present able and indefatigable Secretary of the Essex Agricultural Society. The report of this Society was inserted entire, as follows :

The undersigned, as Recording Secretary of the Massachusetts Society for promoting Agriculture, in compliance with the requisitions transmitted to him by the Secretary of the Commonwealth, respectfully reports ;

That, at the monthly meeting of the Board of Trustees of the Society, held in January last, the Committee on Premiums made a report, offering premiums as heretofore on various modes of culture, on stock, on inventions, on farms, and a premium for the best essay on diseases of animals, which report was accepted. The offer of a premium for the best essay on the diseases of animals was subsequently modified.

The subject being discussed, it appeared that this department of medical science had been little regarded in this Commonwealth ; that if an animal became sick, or was wounded, regular practitioners were not usually summoned, and the farmer had to depend upon any one in his neighborhood who had acquired a reputation, by some little experience, for skill in cases of diseased animals. It was therefore voted, that Dr. Warren, one of the board of trustees, be authorized to offer pecuniary aid to any student of medicine (whom he thought qualified for the purpose) to assist him in completing his education abroad, upon the condition that he should give a portion of his time and particular attention to the Veterinary establishments, for the re-

\* Dr. Warren was a very active and influential member of the Board for many years, and he took a lively interest in everything connected with the animal department. The "skeleton" of the horse was imported by the Society at his suggestion, at a cost of one thousand dollars. It is now placed in the Agricultural Rooms in the State House.

lief and recovery of wounded or diseased animals, in Europe, and especially in France; that he should attend the lectures of the most eminent surgeons on these subjects, to qualify himself to deliver lectures, as well as to practise in this department of science, on his return.

The vote accepting the report of the committee on premiums having been re-considered, a full discussion ensued, and the board came to the conclusion, that the distribution of their funds in premiums as heretofore offered and awarded, (viz., on stock, imported or native, on various modes and objects of agriculture, on the greatest quantity of produce on an acre, on the produce of the dairy, on implements and inventions, on orchards, hedges and forest trees, on the culture of the mulberry and the manufacture of silk, on the culture of the beet and the manufacture from it of sugar, for the best essays on given subjects, for the mode of destroying, if any there were, the insects destructive to vegetables and to trees and to bees, for the best managed farms, and various other objects of great importance to farmers,) had for the time produced the desired effect. It had stimulated the working men of the Commonwealth to effort and investigation, and had done great service by inducing careful experiments and accurate noting of the time, manner and circumstances in which the experiments had been made, thereby giving exact and absolute knowledge whether the experiment proved successful or not.

The board were therefore of the opinion that an intermission of their usual offers, for a time, would be beneficial, and they hoped to excite a new interest in rearing stock, by an importation of the best breeds of milking animals, as well as combining strength and aptitude to fat, that could be obtained, and holding them until they had so multiplied that their stock might spread over the State, at a small expense, compared with the expense of importation, and, therefore, in May last, they voted to appropriate their funds to the importation of stock.

It was assumed, as a fact well established, that care, skill and judgment in raising animals remarkable for their size, strength, docility, and, if cows, for the quantity or quality of milk, would insure in certain breeds, an excellence in either quality at least equal to the parent stock; and, if one of superior excellence should appear, that this superiority might be preserved in the descendants. This theory had been long tested in Europe, where bulls remarkable for the character of their stock become exceedingly valuable, whereas it was rare in this Commonwealth for farmers to keep bulls long enough to know the character of their stock as milkers. With the hope, therefore, of encouraging more attention to the breeding of stock, and to introduce the breeds now most highly prized in Great Britain, the board of trustees voted that an agent be selected and supplied with funds, to go to Europe and purchase animals of the highest character for purity of blood in the breeds of Ayrshire in Scotland, and of North Devon in England, and if he should meet with any other breed of high esteem as an *improved* breed, to select and bring home a pair, in order to test their qualities in this country.

That, so authorized, an agent did proceed to Europe, and in Octo-

ber last returned, and brought with him, in health and fine condition, four cows and a young bull of the Ayrshire breed, and four cows and a young bull of the North Devon breed, at a cost of \$2,582 02; that their agent was fortunate in procuring, at fair prices, animals of the highest character for productiveness, and the trustees have the fullest confidence that in this importation they shall most effectually promote the substantial interests of the farmers of Massachusetts.

The undersigned further respectfully reports, that the said stock are for the present at the farm of Mr. Phinney, one of the board of trustees, and that it would be a great pleasure to him and to the board, to have the animals, their pedigree, and the report of the agent who selected them, examined by any gentleman interested in the improvement of stock.

All which is respectfully submitted by

BENJ. GUILD,

*Rec. Sec'y of the Mass. Society for Promoting Agriculture.*

December 13, 1845.

A part of the report of Mr. Phinney in relation to this stock, which has now taken deep hold in Massachusetts, is as follows:

The distribution of the descendants of the imported stock, in a way that would be most likely to carry out the original intention of the Society, by allowing the whole of the Commonwealth to share in its advantages, had for some time engaged the deliberate consideration of the trustees. To effect this desirable object, and to place within the reach of every farmer the opportunity of improving his stock of cattle with as little inconvenience, and at as low a charge, as possible, has been the earnest desire of the trustees; knowing the reluctance with which most farmers part with their hard earnings for what even they may be made to acknowledge may be a positive good, and much more when the object to be attained is of future, and in the smallest degree of doubtful utility, the trustees were desirous of removing as far as possible every obstacle on the score of expense.

With these objects in view, the trustees, at their meeting in October last, decided to make a gratuitous offer of all the offspring of the Society's stock of cattle to the several County Agricultural Societies, according to the dates of their respective acts of incorporation, by placing in the hands of the officers of the respective County Societies, one or more of the animals, when at a suitable age, for the use of the counties in which they may be respectively located. By the annexed circular, it will appear that the trustees reserve the right of retaining as many of the offspring as may be necessary to keep up the number of the original purchase, and also of reclaiming any one or more of them that may be considered necessary to supply the loss of any one or more of that original number, or for any other desirable purpose. Hoping that each of the County Societies would lend a cheerful co-operation with the State Society, in every measure that might

tend to promote the interest, and best subserve the good of the whole, the trustees believed there would be no objection on the part of the County Societies, to receiving the animals with this reservation.

The whole number of full-blooded animals owned by the State Society, including the original purchase and their descendants, is now twenty-five. To this number, nine more, it is expected, will be added in the course of a few months. These, with their descendants, it is believed, will, within three years from this time, enable the trustees to place in the hands of each of the County Societies at least half a dozen of the full-blood animals, equal to any that can be found in this or any other country. The result of this liberal distribution of the best stock among the farmers of Massachusetts, aided by the skill and careful management of the County Societies, by increasing the product of the dairy, and the value of farm stock generally, will, it is believed, be of almost incalculable benefit.

Some evidence of the value of the Ayrshire, as a dairy stock, and the estimation in which they are held by farmers, may be gathered from the importations of that breed in years past. In 1836, the State Society imported three cows and a bull of this breed. One of the cows was placed in the care of the subscriber. When twelve years old, in the month of January, four months after calving, she yielded ten pounds of butter per week, when kept on hay and one peck of carrots per day. The calves of either sex, at a year old, found a ready sale at \$100 each. A half-blood, at four years old, produced by a cross of the Ayrshire bull with a good native cow, yielded twenty-one quarts of milk per day, for some weeks after calving. The price at which half-blood cows of three and four years old have been sold, has been from forty to sixty dollars, while the native breeds of the same age were selling for from twenty to forty dollars. In some instances, the owners of heifer calves of the half-blood, at only four weeks old, have refused to part with them for an offer of twenty dollars.

The Ayrshire cow, "Young Swinley," imported about seven years since by Capt. Randall, as before stated, and now owned by the society, furnishes an instance of what may be done with a single cow, by way of improving the stock of the country. This cow, upon common keeping, yielded fifteen pounds of butter per week. Four of her descendants are known by the subscriber; "Maggie," owned by the President of this society; "Effy," owned by Mr. Wright, of Lowell; "Pink," owned by Mr. Lawson, of Draut; and "Gowen," owned by the State Society. These are all first-rate cows, and give promise of being fully equal to the dam, and have given from one to four calves each. In a few years the trustees hope to be able to give as good an account of the produce of each of their imported cows. In addition to the four cows above stated, the descendants of "Young Swinley," she has given birth to two or three valuable bull-calves, the youngest of which is owned by the society, and she is now in calf again by the society's Ayrshire bull "Prince Albert."

I would now ask the advocates of our native stock, to the utter exclusion of all foreign breeds, where among all the celebrated milkers of native breed, they can point to a cow whose offspring will compare

with that of "Young Swinley?" What has become of the famous "Oakes Cow," the "Nourse Cow," and a host of other *accidental* good cows, descended from a medley of all races,—unsurpassed, it is acknowledged, in their yield of milk or butter by any of the imported cows? But where are they? All found their way to the shambles. What has become of their descendants? All gone the same way; not a solitary one of them found to be worth the expense of rearing.

Thousands of dollars have been paid within this Commonwealth for the express object of improving the dairy stock; and what has been the result? The hoped-for improvement has been looked for in vain. Not an instance is on record where the extraordinary qualities of the dam have been transmitted to the progeny, except by the crossing with some pure blood of a foreign breed.

Should the opposers of the introduction of the foreign breeds of animals reason philosophically upon the subject, and base their conclusions upon the immutable laws of animal physiology, they would readily understand why their native cow, in whose blood there are blended many of different races of good and bad qualities, might, and in all probability would, produce a worthless calf. They might also, by this mode of reasoning, be induced no longer to question the expediency of expending a few thousand dollars, in procuring a *certain means* of improving the stock of the whole Commonwealth.

And now, while the Massachusetts Society are thus endeavoring to furnish the farmer with the means of improving the quality and enhancing the value of his stock, they take the liberty of reminding him of the duty that devolves upon him, of doing all in his power to aid in the promotion of this desirable object. The cleanliness, comfort and well-being of his cow, furnished by a kind Providence to be the friend and nurse of the whole civilized family of man,—the cow, which contributes so much to the necessities of the poor and the luxuries of the rich,—should be the object of the farmer's unremitted care and solicitude.

Respectfully submitted by

E. PHINNEY.

A. D., 1847.

There was no change in the Board this year, except that in the place of Mr. Forbes, who declined, G. W. Lyman, Esq. was elected Trustee, to supply the place of Hon. Martin Brimmer.

A letter from the Royal Agricultural Society of Paris was received, requesting the result of the Society's inquiries in relation to the potato disease. Dr. Warren, Mr. Codman, and

Mr. King, were made a Committee to report an answer to these queries. At a subsequent meeting, Dr. Warren made a report, which was a communication of Mr. Teschmacher, stating the results of his experiments to ascertain the cause, and if possible a remedy, for the disease of the potato. Mr. Teschmacher had just been chosen a member of the Society, and it was voted that his communication be sent by the Society, officially, as the result of the investigations of one of its members, and that Mr. King, one of the Committee, be requested to transmit with this report, the last report of the Patent Office, and such other publications or documents, as he may think pertinent to the inquiries made by the Royal Agricultural Society.

A letter from Andrew E. Belknap was received, in which he offered to the Trustees a bag of Lentils (a species of pulse) a plant little known or cultivated in this vicinity.

It was voted to distribute the offspring of the imported stock among the County Societies, on the condition that, whenever in the opinion of this Board, the interest to be subserved by this distribution would be more effectually promoted by the return of the animal to this Society, either to supply losses or for any other sufficient cause, the said animal should be subject to the Trustees, and be returned to them.

A letter was read from Mr. Buckingham, enclosing one from Professor Horsford, in which he requested pecuniary aid to investigate the cause and discover the cure of the disease of the potato.

The expense attending the importation, care and distribution of the stock of cattle belonging to the Society, exhausted the year's income for this and the two following years, when they were finally disposed of.



## A. D., 1848.

The Officers and Trustees of the last year were re-elected.

Mr. Phinney was authorized to sell the purchased native cows in his care belonging to the Society, and also their male calves, and that the calves be sold, on the condition that they be not taken out of the Commonwealth.

The books of the Society, in the hands of the Secretary, were removed this year to the Athenæum.

No business of an extraordinary character seems to have been transacted this year. The principal subjects of attention being the care and disposition of the imported stock, and correspondence with other Societies and individuals upon matters connected with the advancement of agriculture.

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## A. D., 1849.

No change took place in the election of Officers this year, until the death of Mr. Phinney, the Recording Secretary. Soon after, upon the resignation of Mr. Lawrence, Charles G. Loring, Esq., of Boston, was elected a Trustee, in his place. Mr. Sears also resigned.

Dr. Warren stated that Dr. Edward Brooks had returned from Paris, and proposed to deliver, in compliance with the wishes of the Trustees, a course of four lectures on the diseases of animals, during the month of February. It was voted that they be delivered in the Hall of the Representatives.

The stock belonging to the Society was sold, on the following conditions, that the whole of one species be kept together, that the whole of the Ayrshire Stock be sold to one individual, and the whole of the Devonshire to one, or as many of one kind as it may be practicable to dispose of in this way; and that the sale of all the stock be conducted on the condition that the animals be retained in the State; also that the whole of one kind

be restricted to one county, for the sake of keeping all of a kind together.\*

Application was made to the President to join with other Agricultural Societies, in requesting the aid of the Legislature in promoting Agricultural Education. This application was seconded by the Society.

### A. D., 1850.

Dr. J. C. Warren was chosen one of the Vice-Presidents, in the place of Hon. Abbott Lawrence, who had resigned. Francis C. Lowell, Esq., was chosen Recording Secretary. The vacancies in the Board of Trustees were filled by Hon. Edward Everett and Thomas Motley, jr., Esq.

A pair of cattle, of the North Devon breed, were selected and presented to George Denny, Esq., of Westborough, for the use of the State Reform School, as a token of the sense entertained by the Trustees of the liberality constantly manifested by the Commonwealth to this Society.

Hon. R. C. Winthrop and Samuel Lawrence, Esq., were chosen Trustees, to supply the vacancies occasioned by the death of Mr. King, and the resignation of Mr. Codman, Treasurer. Thomas Motley, jr., was elected Treasurer.

An appropriation of twelve hundred dollars was made for the importation of a bull and five cows, of the Alderney breed; this sum was afterwards raised to \$2500.

Dr. Warren made some statements of the great superiority of the white corn of Rhode Island to any other corn for bread, and advocated its general culture.

\* The greater part of the Ayrshire Stock was purchased by G. W. Lyman, Esq., who now has a full herd of pure blood animals, derived from the purchase.

## A. D., 1851.

The last year's Officers were all re-elected.

A Committee was appointed to examine the utility and the practicability of a certain process, discovered by Mr. D. T. Curtis, for the early ripening and the long continuation in perfection of ripened fruits.

Dr. Brooks, who had been employed by the Society to acquaint himself with the diseases of animals, and to lecture on this subject, was suddenly attacked with a disease that proved fatal. Arrangements were subsequently made with another young physician (Dr. Slade) to carry out the same views.

A letter from W. T. A. Bradford was read, accompanying a pamphlet which he had written upon the origin of the potato, and upon the disease that effects it, offering the pamphlet for ten dollars per hundred. The Trustees purchased two hundred of the pamphlets ; but in writing to Mr. Bradford, the Secretary suggested that the vote was passed, before the treatise had been read, more with a view to reward and to stimulate investigation, than to sanction anything that might be advanced.

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## A. D., 1852.

The Officers of the past year were re-elected.

A letter from the Secretary of the Commonwealth was read, dated June 11th, in reference to an act of the Legislature, of April 21, wherein it was required of all societies receiving annual grants from the State "to appoint a member of the State Board of Agriculture," within sixty days of the passage of the act. It was therefore voted that the President, Mr. Gray, be appointed a member of the State Board of Agriculture.

Dr. Warren, Mr. Everett, and Mr. Winthrop, were appointed Delegates to the National Agricultural Convention.

Mr. Motley was authorized to obtain a new plate for Diplomas, to supply the place of the one which was lost.

The Board experienced this year a great misfortune, in the death of Hon. Daniel Webster, who was "as remarkable for his comprehensive views of the general principles, and his thorough acquaintance with the practical details of agriculture, as for the depth and soundness of his legal and political knowledge."

Another effort was made to obtain the grant of the remaining half township of land from the State of Maine which had not yet been placed in the Society's possession.

Dr. Warren resigned his office as Vice-President, at the end of the year.

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### A. D., 1853.

Several vacancies occurred in the Board this year, and Dr. Warren, Henry Codman, and Josiah Quincy, jr., declined re-election. The new Board was constituted as follows:

J. C. GRAY, *President*.

F. C. LOWELL, *First Vice-President*.

WILLIAM P. MASON, *Second Vice-President*.

CHARLES G. LORING, *Corresponding Secretary*.

G. W. LYMAN, *Recording Secretary*.

BENJ. GUILD, *Assistant Recording Secretary*.

THOMAS MOTLEY, JR., *Treasurer*.

EDWARD EVERETT,	} <i>Trustees.</i>
R. C. WINTHROP,	
SAMUEL LAWRENCE,	
JAMES BROWN,	
GEORGE PEABODY,	
JAMES W. PAIGE,	

The Treasurer was authorized to pay to the Treasurer of the Board of Managers of the National Exhibition of Horses, the sum of two hundred and fifty dollars, for distribution in premiums in aid of their objects as solicited.

One of the Alderney Cows, fed upon grass and corn-stalks gave milk yielding an average of 12 lbs. 3 oz. of butter a week for seven months, under the charge of Mr. Motley.

A letter was received from Col. Chandler, President of the Middlesex County Agricultural Society, suggesting the expediency of districting the Commonwealth into four districts for the purpose of offering premiums of seventy-five, fifty and twenty-five dollars in each district in successive years, for the best dairy stock of not less than six, and that the premiums be paid by the Trustees of this Society. An appropriation was afterwards made for this object.

The sum of one hundred dollars was given to aid the Legislative Agricultural Society in obtaining lecturers.

Mr. Everett resigned his seat in the Board.

Six hundred dollars were paid to Dr. Slade for his lectures in the State House, on the Horse, and two hundred and fifty dollars to the National Horse Exhibition.

### A. D., 1854.

No change was made in the Board this year, Mr. Everett having remained in the Board, by particular request.

A communication from the Worcester Agricultural Society, suggested the offer of a premium for an experiment of five cows of different breeds, and all fed and treated alike.

A conversation was held with Mr. Newton, of Berkshire, who wished the attention of the Trustees called to a supposed discovery of the cause of the potato disease.

A vacancy occurred in the Board this year, by the death of James Brown, Esq., a gentleman distinguished for his integrity, liberality, his practical good sense, and the amenity of his disposition and manners.

A legacy was bequeathed to the Society this year by the late Dr. George C. Shattuck.\* One hundred and fifty dollars were contributed to the Berkshire and the same amount to the Wor-

\* It has been accumulating by the will of the donor, until the present time, and now amounts to the sum of nine thousand one hundred and sixty-six dollars.

chester Agricultural Society, to be expended in premiums. One hundred dollars in purchase of a Jersey bull presented to the State Reform School, at Westborough, and one hundred dollars in the importation of turnip seed for distribution.

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### A. D., 1855.

The vacancies in the Board, occasioned by the death of Mr. Brown, and the resignation of Messrs. Everett and F. C. Lowell, were filled by the election of Messrs. Stephen Salisbury, Wm. S. Lincoln, and R. S. Fay.

The sum of six hundred dollars was appropriated for a premium, or premiums to encourage the introduction and use of mowing machines.

One thousand dollars was given in aid of the United States Agricultural Society's show, in Boston, two hundred and fifty-nine dollars to county societies, for special premiums, which, with the expenses on account of stock, and other gratuities of about eight hundred dollars, exhausted the annual income of the society.

The premium offered for mowing with a machine excited a general competition throughout the State, and gave a great impulse to their introduction and use, as well as to the improvement in the manufacture of them. The following report upon the subject was made by a Committee of the Trustees, in whose hands it was placed.

The undersigned, being a committee appointed by the Society to take charge of the subject of a premium of six hundred dollars, offered by the Society "to the possessor of the mowing machine which shall cut, during the present season, with the greatest economy and to the best advantage, not less than fifty acres of grass within the State, the machine to be worked by horse or ox-power," beg leave to report:—

Immediately upon their appointment, they issued a printed circular, offering the premium with the conditions attached to it by the Trustees. They likewise invited the County Agricultural Societies to assist them in their duties by observing the work performed by the

competitors within their districts. They also prepared a blank form which was sent to each competitor, with a view of obtaining a uniform return upon all the points deemed to be necessary in making up their award, and also such information as might prove useful hereafter, both to farmers and to the manufacturers of machines; copies of each of these documents are herewith appended.

Forty entries were made for competition within the time limited by the trustees; of these, but sixteen complied with the conditions by making a return of their work before the tenth of September. Of these, Mr. Lyman desired not to be considered a competitor, making his return only for the purpose of adding to the general information sought for by the trustees upon this subject. The return of the Hon. Josiah Quincy came too late to entitle him to claim the premium; but it is recorded with the rest as a valuable addition to the knowledge sought for by the committee, as also his remarks, a portion of which will be found in the Appendix.

It was originally proposed that the labor of supervising the work of the competitors should be divided among the members of the committee. It was soon apparent, however, that this method would not give them that knowledge of the comparative merits of the competitors, which was absolutely necessary in the final award of the premium. It was therefore arranged that one member should visit each competitor and examine his work, thus creating one general standard by which the whole should be judged. Mr. Lincoln undertook this extremely laborious task, and the report of his observations is herewith submitted for your examination.

Much good, although some misapprehension, has arisen from County Societies having appointed public trials of mowing machines, connecting them with this premium offered by the trustees of this Society. This has been caused, in part, by the fact of the premium offered for the *best mowing machine* to be awarded in 1856, and partly from the great interest which has sprung up among the farmers in relation to the subject. These trials, although interesting and instructive in themselves, have had no weight or influence in making up their award. The committee have directed their attention singly to the work done, and to the skill and economy with which it has been accomplished. They are fortunately relieved from passing any judgment upon the comparative merits of any particular patent or the work of any manufacturer at this time, because they have seen no machine as yet, which, in their opinion, is not capable of very great improvement; and they feel confident that by the coming year, we shall see many modifications which will add to the efficiency of the instrument, and (the committee hope) much better workmanship than has thus far been exhibited by the makers. The field is still open for the patentees and manufacturers, and every effort will be made that a fair trial shall be had to determine whose machine is the best, as there has been this year, to determine who has shown the greatest skill in the management of those now in use.

The returns of the competitors, (an abstract of which is herewith appended,) furnish much useful information. They establish conclusively, that machines can be used to mow with advantage a much

larger range of field, as to quality and condition of land and grass, than one would have supposed to be possible at this early stage of their introduction. Rough land covered with stones, hilly and broken surfaces, reclaimed bogs, salt marsh, all seem to have been brought under the dominion of the machine, with as few casualties to it as usually fall to the common scythe. At the same time the returns show with equal clearness that the farmer will gain in the end, by putting his field into better condition for the use of the machine; and it is to be hoped that one consequence of their introduction will be clearer and better ordered fields, and the removal of stumps and stones that have been too long an eye-sore and a disgrace to many of our farms.

The returns in detail show how minute the sub-division of our farms has become from the smallness of the fields cut over, not averaging, with the exception of the river bottoms, four acres. These small fields are great impediments to good farming in every point of view, and particularly to the use of machinery moved by oxen or horses. It would not be too much to say that one field of twenty-five acres can be more cheaply and better cultivated, and with a better pecuniary result per acre to the farmer, than twenty acres cut up into three, four or five lots.

The time employed in cutting with the machine is of considerable importance in reference to its labor-saving properties; and if we were confined to the returns themselves, it would be impossible to decide how far this economy has been carried. Some of the competitors have doubtless deducted for all stoppages; that is to say, they have made an exact return of the time during which the machine was actually in motion, while others have counted from the time when they commenced work to the moment when they finished, without deducting for stoppages to rest and repair. Nearly all the competitors, however, have cut a measured half acre before Mr. Lincoln; the average of the time being about twenty-two minutes to the half acre. The land selected for these trials was equal, if not better, than the average, and the horses were driven as fast, at least, as they were accustomed to be worked. This would therefore prove, that a fair average performance of a machine would be for cutting one acre, forty-four minutes; whether a pair of horses could continue this rate of work for any great length of time is not so certain; but the facts before us and our own observations lead us to believe that an hour per acre would not be an overtask for horses, including all ordinary stops, and that a pair of horses could continue the work so as to cut, without undue exertion, from ten to twelve acres per day.

The time table as presented by the competitors, is evidence of the value which they attach to speed, and too much haste has in consequence shown itself in the work performed. The machine has, in too many instances, been dragged over without cutting the grass, for want of time to permit the knives to operate, and a mane of grass has been left between the swarths in the endeavor to get the full benefit of the cutting bar. The competitors have nearly all erred in these respects; but the fields of Mr. Lyman, which, since he has withdrawn from the competition, we feel no hesitation in speaking of,



present a complete exception, affording a beautiful illustration of even and correct speed, and evincing no common judgment and skill in the operator of the machine. We allude to this for another reason, from the fact that the operator had never before worked or seen a machine at work; the important truth is established, that it requires no apprenticeship to work a mowing machine, but that it is at once a useful instrument in the hands of any one possessing a fair amount of judgment and discretion.

The returns are uniform in their testimony as to the ease with which the horses have performed their work. They have been generally of light weight, not averaging more than 1,050 pounds, and they have gained in flesh during the season's work, several of the competitors cutting from sixty to ninety acres, and doing all the raking, carting, and other usual farm work.

The accidents which have been recorded by the competitors have been much fewer and slighter in character than it would have been thought possible in fields not properly prepared for the machine, and they have generally been repaired upon the spot, and they have too often been the result of imperfect workmanship. A nut should never get unscrewed or a finger, pin, or pole break, unless some great violence is done to the machine by the unskilfulness of the operator. Yet all these accidents have occurred without any apparent good reason, in too many cases. The remarks of the competitors upon this point are well worthy the attention of the makers of mowing machines.

There is another gratifying fact which has come under the observation of the committee, and which they deem worthy of mention, and it is this, that the better and stouter the grass, the more perfect has been the working of the machine, in all respects. This is another inducement to better cultivation, which, it is to be hoped, will not be lost upon farmers.

We come now to the delicate and difficult question, to which competitor or competitors shall the prize be awarded? In order to arrive at a conclusion, satisfactory to ourselves, we have made an abstract of the returns, and have given to each competitor credit for what he has done, taking time, quantity, quality, and economy of work into each account. We have also had the benefit of Mr. Lincoln's report upon the performances of each competitor, and have deduced from it, as well as we could, the comparative excellence of the work done. We have also been aided by the reports and the observations of county societies and committees. It will be borne in mind that the trustees, in offering the prize, reserved to themselves "the right of dividing it among equal claimants." This, fortunately, relieves the committee from a very great embarrassment; for it is impossible for them to determine which, of two competitors, stands the first. All other things being equal, the highest number of acres cut would have settled the question, but this is not the case, no two things being equal—each having a superiority, in some points, over the others. They recommend, therefore, that the premium of six hundred dollars be divided, in equal sums, and paid to the following competitors: MARCUS BARRETT, of Auburn; SAMUEL PARSONS & SONS, of Northampton.

Accompanying the returns, there have been several letters and communications addressed to the committee, by competitors and others, portions of which are annexed to this report, as bearing upon points about which it was the design of the trustees to procure information.

The committee have received the ready and cheerful co-operation of the county societies, whose services have been rendered in a most liberal spirit. They have likewise been met by the competitors in the best feeling, and with an earnest desire, on their part, to do all in their power, not so much to gain the premium offered, as to test the value of the mowing machine as a labor-saving implement. They cannot, therefore, take leave of the subject without an expression of thanks to all who have been engaged in the competition, and to those who have assisted them in their labors.

General abstract of the returns of the competitors.

Number of competitors,	.	.	.	.	.	17
do. acres cut,	.	.	.	.	.	1,457
Hours occupied in cutting,	.	.	.	.	.	1,067
Average time per acre in cutting, minutes,	.	.	.	.	.	44
Number of horses employed,	.	.	.	.	.	34
Average weight,	.	.	lbs.	.	.	1,029
Fingers broken or lost,	.	.	.	.	.	93
Knives,	.	.	.	.	.	18
Pins, screws, bolts,	.	.	.	.	.	17
One track clearer broken,	.	.	.	.	.	1
“ pole,	.	.	.	.	.	1
“ axle,	.	.	.	.	.	1
“ iron brace,	.	.	.	.	.	1
“ crank,	.	.	.	.	.	1
“ cog wheel,	.	.	.	.	.	1

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A. D., 1856.

Hon. George T. Bigelow was elected a Trustee, in place of W. P. Mason, Esq., resigned.

Encouraged by the interest excited last year in relation to mowing machines, the Trustees offered a premium of one thousand dollars for the best machine, to be competed for during this year. The introductory remarks in the Transactions, as well as the Report of the Committee, not being Trustees, who were selected to award the premium, will be given hereafter.

The Society also held a dairy show at Worcester, in connec-

tion with the annual show of the Worcester Agricultural Society, appropriating twenty-five hundred dollars in premiums, and likewise exhibiting and afterwards disposing of the Jersey Stock, owned by the Society, at auction. The show was a very creditable one, *as far as it went*, but the Trustees were generally disappointed at finding that, after all the expense and labor which it had cost the Society, so little State feeling could be roused upon a subject of such paramount importance to the interest of agriculture. It was remarked by one of the Trustees at the dinner, after the show, "that good animals and good farms went together, and he was sorry to see so few evidences of the latter at the show. A farmer cannot bring his thrifty acres to Worcester, to exhibit them, but he might bring the title deeds of them, in the form of well-fed stock."

A very able report on Classes Nos. 1 and 2, in the Dairy Stock Premiums, was prepared by the Hon. Levi Lincoln, in which great regret was expressed that there was not a larger and wider competition for the premiums offered.

"It is now," says the Report, "more than a year since the Trustees of the State Society, with munificent liberality, appropriated a sum exceeding two thousand dollars, for the encouragement of dairy stock, of which sum one thousand and fifty dollars were offered, in published proposals of premiums, for dairy cows, in two classes of six and four animals respectively, to be exhibited at the annual cattle show of the Worcester County Society, the present year. The competition was made open to farmers from all parts of the State; and to equalize localities, as far as might be, liberal compensation for travel was provided for competitors, in proportion to their distances from the show. Four premiums were proposed in each class, varying in the first class, from \$250, the highest, to \$100, which was the lowest; and in the second class, from \$150 to \$40. It might have been expected that an amount of bounty so nearly corresponding with the value of the animals to be exhibited, and so richly remunerative of any care and labor in giving an account of their qualities, and their management and product for a single season, to say nothing of the incentives and influences of a public spirit, would have secured general attention, and attracted

numerous competitors in the trial. The committee have to regret that such has not been the case. There are even fewer competitors than the number of premiums offered for distribution; and of these, with a single exception, all are from the county of Worcester. After the repeated efforts which, in years past, have been ineffectually made to obtain, by statement and exhibition, the means of comparison and preference between the dairy stock of different districts of the Commonwealth, and to gather reliable information of the product of dairies and the mode of their management, there is little to encourage a persistence in this mode of inquiry. But we may be comforted in the assurance, that the progress of improvement, though slow, will be certain to follow individual interest and enterprise, and trust to time, at last, for the fruits of experience and success."

The "Transactions," for 1856, were almost entirely devoted to the subject of Dairy Stock, and the first No. of an article by T. Horsfall, from the Royal Agricultural Society's Journal, (England,) was added. It will be found worthy the attention of every farmer in Massachusetts. Two thousand copies were printed, by order of the Trustees, for gratuitous distribution, a number having been sent to each Agricultural Society in the State, and a portion left with C. L. Flint, Esq., the Secretary of the Board of Agriculture, to be similarly disposed of.

## EXTRACTS FROM THE TRANSACTIONS OF 1856.

### INTRODUCTORY REMARKS.

The operations of the Society during the present year have been of more than usual interest. This has been occasioned by the dairy show, which took place at Worcester, under the auspices of the Worcester Agricultural Society, in connection with their usual exhibition, and by the trial of mowing machines entered in competition for the premium of one thousand dollars.

By referring to the records of the Society it will be found that from the earliest period of its existence much attention has been paid to the improvement of the breed of cattle, and more particularly with reference to dairy purposes. Importations of stock have been made from time to time at very considerable expense, and the animals have been placed in a way to disseminate their breed throughout the State. In this manner the Devon, Ayrshire and Jersey cattle have been successfully introduced. Without increased attention, however, to the keeping of stock, and more care in selection for breeding purposes, the simple act of bringing good animals into the country will do but

little good. It has consequently been the aim of the Society by the offer of liberal premiums, to advance the improvement of the stock thus introduced, as well as to excite a more general interest in this subject.

By an arrangement made with the Worcester Agricultural Society, one day of their show was devoted to the exhibition of the dairy stock, for which premiums were offered by this Society, although the competition was not as general as could have been desired, falling far short of the expectations of the Trustees, it has, nevertheless, been of service in awakening attention to this important branch of agricultural economy. One reason for the smallness of the numbers competing for the various premiums offered may be found in the difficulty of forwarding cattle to any distance, and the injury occasioned to dairy stock by a change of food and from exposure during the exhibition. In view of this, the Trustees would suggest that hereafter, in all cases of premiums for dairy stock, the Committees to whom the awards are confided, should visit each competing animal, examine the mode of treatment and the management of the dairy at the home of the competitor, and make the awards before the day of exhibition, requiring only successful competitors to send their animals to the show.

The Jersey cows belonging to the Society were exhibited at Worcester, and at the conclusion of the show all the animals were offered at public auction and sold without reserve. This herd has been in the possession of the Society for five years, and by an arrangement with Thomas Motley, jr., the male progeny has been from the first his property, and all the bull calves have been raised and sold for breeders. The sale of the cows and heifers has now been made, and an opportunity afforded to the farmers of the State to possess one or more of them.

The thanks of the Trustees are most cordially given to the Worcester Agricultural Society for the ready aid and co-operation of its worthy President, Mr. John Brooks, and the other officers of the Society, upon this interesting occasion, and also to the Committees, who cheerfully gave much time and attention in making their awards. Nor will it be thought invidious or unjust, if, from the number of those who thus aided the Society, the Trustees should name in an especial manner the services of Ex-Governor Lincoln. His labors, as well as his distinguished knowledge upon the subject committed to him, sufficiently appear in his able and interesting report on the two first classes of premiums offered; it needs no word of praise to commend it to the attention of all farmers in Massachusetts. But the Trustees feel it to be a pleasure as well as a duty to speak of one so long and so honorably distinguished in the public service, who in the retirement of private life still occupies himself so usefully and beneficially for his fellow men. Indeed, without his aid, this effort to collect and embody useful information and to excite emulation where both are so greatly needed, would have lost much of the good which it is hoped has been effected.

Not less interesting in the transactions of the Society for the present year, and of special importance also, to the agricultural commu-

nity, has been the competition for the premium on mowing machines. Every step made to save manual labor by the use of machinery in tilling the soil, and in bringing agriculture as nearly as possible under the control of labor-saving implements, is in the right direction. The principle means of accomplishing the economy of human labor in agriculture, as in other departments of industry, are the exercise of skill and the employment of machinery, both of which indicate a high state of advancement, and may be regarded as a true test of its progress.\* There are two principal points, therefore, in relation to this subject, to which attention ought to be directed; one is, the introduction of agricultural implements, in all cases where their profitable use can be satisfactorily ascertained; the other is, that these implements be manufactured at as low a cost as possible consistent with perfect workmanship. It follows, of course, that the more general the use of any instrument is, the cheaper it can be afforded; but it is also true that, for want of skill and care in their manufacture, farmers often suffer much inconvenience, and are discouraged from purchasing and using many implements for farm work, of a really useful and labor-saving character.

Last year the Trustees offered a premium of six hundred dollars, to the person who should cut not less than fifty acres of grass by a machine moved by horse or ox power. The object which the Trustees had in view, was, principally, to bring out skill in the use of a mowing machine comparatively new, without reference to the particular merits of the several kinds then offered to the public. They felt strong hopes, also, that so large a premium would incite many to try the experiment of mowing with a machine, who would otherwise wait to see whether it was successful or not. In this they were not disappointed, the number of competitors for the premium having been large, and the competition very close.

It will be seen by referring to the report of last year, that although there was but one opinion upon the economy of the machine over scythe mowing, there was a general complaint of bad workmanship; and as each competitor was obliged to report every accident which his machine met with, it did not require complaints on the part of competitors, to convince the Trustees that *there was a screw loose somewhere*. No machine went through the trial without more or less breakages, which, although generally of a trifling nature, involved a certain loss of time.

The offering of the premium of last year resulted most successfully, since it developed a skill which has been too long dormant, and demonstrated very clearly that the mowing machine, if well made and constructed upon correct principles, might be successfully introduced and used as a great labor-saving implement throughout the State.

Having arrived at this point, the importance of perfecting this labor-saving implement, and of having one constructed that should

\* See "The Journal of Agriculture, &c., of the Highland Agricultural Society of Scotland." No. 53. New Series.

unite every possible requisite to make its use general, being fully shown by the trials of last year, the premium of one thousand dollars was offered for the best mowing machine, to be awarded the present year. In order to do justice to competitors, and to arrive at a satisfactory result upon the merits of different machines offered in competition, the machines were subjected to separate trials in every possible way, under the inspection of three gentlemen, distinguished for their good judgment and knowledge in every thing pertaining to the matter confided to them, viz.: Col. Moses Newell, of West Newbury, Col. T. W. Ward, of Shrewsbury, and Thomas E. Payson, Esq., of Salem. They undertook the task, with a full conviction of the importance of the duty assigned to them, and devoted themselves to it with unwearied zeal. Their report, which is appended, speaks for itself, and shows the care and labor they bestowed upon the matter, and the conclusion which they arrived at met with the unanimous approval of the Trustees, who, in accordance with the report of the Committee, awarded the premium of one thousand dollars to the Heath machine, entered by D. C. Henderson, of Sandusky, Ohio.

The Trustees have now done all that lies in their power to introduce the mowing machine into use as a great labor-saving implement. They hope not only that it will be adopted, but that it will lead the way to the use of others equally labor-saving and quite as essential to the prosperity of agriculture in Massachusetts. Nor does there seem to be any reason why almost all the labor of the hay harvest, which is at present the most trying and expensive in its nature of any of our farming operations, should not be done by machinery worked by horse-power. The mowing machine, the hay-maker,—such as is now in use in England,—and the horsrake, with the aid of two men and three horses, are quite competent to perform the work now required of twelve or fifteen men, allowing only one man per day to the acre, for cutting and making hay.

The farmers have also a duty to fulfil. It is only by their purchasing labor-saving implements, and using them whenever it is in their power to do so, that they can be perfected. In this way encouragement is given to invention and mechanical skill. Agricultural Associations, with their addresses and their premiums, are valuable only as the pioneers in the march of improvement. They can direct public attention to objects, but they cannot accomplish much unless a right spirit exists in the breast of every tiller of the soil. Their labors are of little avail unless their recommendations and exhortations are met by the ready zeal of all. The great cause of agricultural improvement will always falter and move with feeble steps, when those who have it in hand are out-numbered by the listless and apathetic. The obstacles in the way of success to a Massachusetts farmer, are serious enough under the most favorable circumstances, but they are perfectly discouraging, unless they can be met by the united will and firm purpose of all to overcome them. Careful investigation, and the experience gained even by common observation of what is passing in other lands, must convince every reflecting person, that agriculture as a pursuit must languish, unless more strenuous efforts are made to increase our mechanical skill in the cultivation of

the soil; and it is from this strong conviction, that the Trustees thus earnestly speak upon the subject.

### MOWING MACHINES.

*To the Trustees of the Massachusetts Society for the Promotion of Agriculture:*

The subscribers, selected by your Honorable Board to inspect the work of the different mowing machines entered for premium, and to judge of their merits, respectfully report:

Of the number who had signified their intention to compete for the premium, there were, at the time of our appointment, ten who had complied with the conditions on which it was offered, and had given notice of the places selected by them for the operation of their several machines, to wit: Messrs. J. C. & D. Elliott, A. Dietz, Howard & Wood, Nourse, Mason & Co., J. P. Adriance, A. D. Briggs, R. L. Allen, Jones & Thompson, E. Danforth & Co., and D. C. Henderson.

These competitors were all notified to be in readiness to mow five acres or more of grass in our presence, at the several places by them selected for that purpose, on a particular day named, a day having been assigned to each.

The Messrs. Elliott, Dietz, and Howard and Wood gave notice that they were not prepared to exhibit their machines at the time appointed, and withdrew from the contest.

Messrs. Jones & Thompson exhibited their machine, but did not attempt to mow five acres. They likewise withdrew from competition. Their machine was new, had scarcely before been tried in the grass, and its operation probably afforded as little satisfaction to them as it did to us. In its main features, and particularly in its cutting arrangement, it resembles the machine of E. Danforth & Co. As we shall notice that machine hereafter, it is not necessary to give a further description of this.

The six other competitors each cut more than five acres of grass, the time occupied varying little on the average, from one hour to an acre. The machine entered by Mr. Adriance, was the only one which did its work in less than that time. Five acres and twenty-seven rods were mowed by him, in four hours and fifty-one minutes. In speaking of the time occupied, no deduction is made for stops.

It will be readily seen that these trials furnished very insufficient data by which to judge of the comparative merits of the different machines.

The ground had, in all cases, been selected by the competitors themselves, or by some one in their behalf. The character of the crop, and the condition of the surface varied in different localities. Generally favorable to the successful operation of a machine, some lots were much more so than others. In several instances, horses and driver were perfectly familiar with the working of the particular machine which they used, and both understood exactly what to do to show it to the best advantage. Others were worked at great disadvantage in this respect, and in one case neither horse nor driver had ever seen a mowing machine before.



In order, therefore, to give the machines a fair test on equal footing, as well for the competitors as for our own satisfaction, we concluded to operate them ourselves in the same field, under similar circumstances and in similar grass, with the same pair of horses, and a driver who had no interest in any machine. This seemed to us the readiest and most feasible mode of testing the machines, and in fact the only mode which would enable us to arrive at a decision at all satisfactory, and for which we could give a sufficient reason.

For this purpose, three lots of grass, differing in quantity, quality and situation, were obtained on the farm of Mr. Thomas J. Field, in Northfield, a driver procured who was entirely unacquainted with mowing machines, and five of the competitors notified to have their machines at Mr. Field's farm on the morning of the 29th of July. In the trial, the owners of the several machines were directed to give the driver just such instructions as they saw fit in relation to the management of their machines. Our only instruction to him was, to drive them all as nearly as possible at the same rate of speed.

E. Danforth & Co. were not notified, because, in our opinion, there is an objection to their machine, apparent on inspection, which must prevent its general use in New England. It has two sets of cutters or knives, worked by a double crank in opposite directions, the edges of the blades of the under knife being serrated, and in their operation cutting very like shears. It has no fingers and of course no finger bar, and is probably as little liable to clog as any other machine. In many parts of the West, where it is manufactured, and where a mower may be used a whole season without once touching a stone, it undoubtedly works well. There a blade is rarely broken, while here they are constantly liable to damage, and are in fact often broken. In other machines the blades are riveted or bolted, or otherwise secured to the knife-plate, so that, in case of injury, one can be more or less readily substituted for another. The blades of Danforth's knives are not bolted or riveted upon a knife-plate, but plate and blades are one entire piece of steel, like a saw with very large, blunt teeth. They are, in fact, saw plates. The only way to repair a broken blade, therefore, is to weld it. Now we take it that few mechanics, in a machine-shop even, can weld a broken saw-tooth without injuring or destroying the entire plate. Certainly, in the country, the place where mowing machines are to be used, nobody could be found able to do it. A broken blade would probably involve the necessity of an entire new knife. This seemed to us an insuperable objection to the machine, without looking for others which may or may not exist, and for that reason we did not desire to put the Messrs. Danforth to the trouble and expense of a further trial.

The five other machines were upon the ground at the time appointed, or on the next morning.

The first lot of grass mowed contained about six acres, sown with Timothy in September last. The bottom was not thick, and the ground very far from being swarded over, might appropriately be termed dirty. The crop was not heavy, but uniform in quantity and quality. An acre was mowed by each machine.

We were satisfied at this trial, that any further experiment with

the machine patented by W. H. Hovey, on the 15th of April of the present year, and entered by A. D. Briggs, was not desirable.

Without a drawing it would be difficult for us so to describe its several parts as to make ourselves understood. It is, perhaps, enough to say, that the blades are not bolted or riveted to the knife-plate, and are yet so fastened as to be held firmly and securely in their places by an arrangement so simple that any farmer or laborer can substitute one for another without the aid of a mechanic, and almost without the aid of hammer or wrench, in an instant of time. This we consider a great merit. The knife-plate covers the finger-bar entirely, and being constantly in motion when the machine is in operation, leaves no stationary surface for the cut grass to fall and rest upon. This is claimed, by its inventor, as a great advantage. In its workmanship, also, it is quite equal to either of the other machines. But the amount of draught required to operate it, makes it a very severe load for a pair of the stoniest horses. Whether the power is wrongly applied, or whatever may be the cause, the fact is so. This, if there were no other objection, makes the use of it to any extent, in its present form, entirely impracticable.

The four other machines were tried upon another lot of grass, on pieces of equal dimensions, each in succession, both when the grass was wet, and dry. This was a heavy crop of clover, Timothy and redtop, mixed, some of which was lodged. Portions of the lot were rolling, and the surface generally quite as far from level as are our ordinary grass fields, so that upon the whole, it was an excellent lot to test the machines.

They were also tried on a meadow bottom which had never been ploughed, where various natural grasses, both coarse and fine, were intermixed.

The trial, you will thus perceive, was a thorough one, and by it we were able to form a satisfactory judgment of the merits of the different machines. The remaining machines and between which we were to judge, were patented or known as Ketchum's, Manny's, Heath's, and the Allen machine, entered by R. L. Allen. The owners of the Ketchum machine allege that Mr. Allen has infringed upon their patent, and has no right to build or sell his machine, except within the limits prescribed in a license procured from them, and that Massachusetts is not within those limits. However that may be it is of no consequence so far as our report is concerned, for we did not regard the consideration of that question as within our province, and it therefore had no weight with us. The Ketchum machine, entered by Nourse, Mason & Co., has probably been in use longer in this State, and is more generally known, than either of the others. The one which they entered for premium differs from those which have been built by them in years past, in having a driving wheel of comparatively small size, wrought iron substituted for castings wherever it was deemed practicable, and every thing about the machine so made as to reduce its weight. In this they have succeeded; their machine, with pole and whippetrees attached, weighing only about 460 lbs. The price of the machine has also been reduced from \$100 or upwards, to \$75. We think that in this they have made no mistake, but that the reduc-

tion in weight is a great mistake. The difference in the amount of draught required to operate a machine of 400 lbs. weight and another of 700 lbs. weight, other things being equal, would probably be almost imperceptible, except by very accurate dynamical tests, and may it not be that the difference would then be found to be in favor of the heavier machine? Without entering into any speculation upon the matter, we think that it was a fact apparent to every careful observer, that this light Ketchum machine actually required more power of draught, when in operation, than either of the four, and that the one which required the least power of draught was almost twice as heavy. So light indeed was it, that with the weight of the driver superadded, and driven at a rate of speed sufficient to cut the grass well,—which, by the way, is a little higher than that required by the other machines,—inequalities in the surface, even slight ones, caused it to bound in such a manner as to throw up the extreme end of the finger-bar several inches above its true cutting level, leaving the stubble uneven and wavy.

Allen's machine required less power of draught than the Ketchum machine. Its weight, with pole and whippetrees, is about 600 lbs. No machine that we have seen is so readily thrown in and out of gear as is this. It has a wooden, instead of an iron finger-bar. In our opinion an iron finger-bar is preferable. The weather cannot affect it, as of necessity it must a wooden one, and the grass which falls upon it leaves it a little more readily. Outside of the driving wheel is a light wheel which runs on a spring axle, and is claimed to be advantageous in turning and in working the machine upon a side hill.

The Manny machine also requires less power of draught than did the Ketchum machine. In this respect, the difference between it and the Allen machine was almost imperceptible. It has a wheel at the end of the knife-bar, which greatly assists in turning and backing, and makes it much more comfortable to transport from one field to another. We think that, other things being equal, a machine with a wheel at the end of the finger-bar has an advantage over a machine without it. Although very different in construction, we regard the Allen and the Manny machines as very nearly alike in point of merit, and if it had so happened that it was necessary for us to decide between those two machines, our judgment would have been made up cautiously and with much hesitation, for each has points of excellence which the other does not possess. Both these machines did their work generally well, but not so well as the work done by the Heath machine.

This, like the Manny machine, has a wheel at the end of the finger-bar. Like that, too, it has a reel, which may or may not be used, as circumstances require. But its cutting arrangement differs entirely from either of the other machines. They each have a single knife, with the blades riveted to the plate, and not operating through cast iron fingers or guards, which, especially when the knife is dull, may be liable to get filled up, and thus clog the blades. Instead of these, this machine has virtually a double set of cutters, the under set being stationary, projecting an inch beyond the upper, and thereby acting in the double capacity of guard *and* cutter. These, as well as the

upper blades, are each independent of the other, and each attached to its bar by a screw bolt. The upper set of blades is held down by a spring pressure bar, so that the operation is similar to that of shears, the grass being cut between two sharp edges, and the machine working nearly as well at one rate of speed as another. In case of accident, therefore, a blade can be removed by any body and another substituted, in an instant of time. Both the upper and lower cutters are made like the best edge-tools in use, of the best cast-steel, with wrought iron backs. The iron furnishing strength, the steel can be made as hard as desirable, without so much danger of breaking by use, and being made hard, do not require to be so often ground. The lower cutter, or guard, as you may please to call it, is half an inch thick and one and one-fourth inches wide. The upper blades are about twice as thick as those used on any other machine. This machine very evidently required less power of draught than either of the others, and did its work the best. The Manny machine weighed about 600 lbs. This weighs about 850 lbs. In its cutting apparatus, which is, perhaps, the most important feature of a mowing machine, we regard it as *very much* superior to either of the others. In its ease of draught, perhaps the next most important feature, we regard it as superior. We regard it also as less liable to clog than any machine with fingers or guards, like those of Ketchum, Manny and Allen. In other *important* features it is equal to the other machines.

We therefore unhesitatingly, confidently and unanimously, express the opinion, that the Heath machine, entered by D. C. Henderson, is entitled to the premium of one thousand dollars, if that premium is awarded the present year.

MOSES NEWELL.  
THOMAS E. PAYSON.  
THOMAS W. WARD.

Boston, September 12, 1856.

An arrangement was made and completed for the transfer of the library to the custody of the Secretary of the Board of Agriculture, at the State House.

An application was made by Mr. Langstreth, for aid in importing Italian bees, and it was referred to a committee with full powers, if they thought it expedient, to aid him to the extent of two hundred dollars. A premium of two hundred and fifty dollars was offered for the best practical essay on the comparative economy of horses and oxen, for farm purposes in Massachusetts, the offer to remain open to 1858.

A letter was received in relation to a bequest of the late Andr  Michaux, the distinguished naturalist of France, payable on the decease of Madame Michaux, to this Society. The sub-

ject was placed in charge of a committee, who subsequently made a full report, the purport of which may be understood from the minute of a later meeting of the Board. The Secretary stated that in pursuance of the votes reported by the Committee and passed at the last meeting, relative to the bequest of the late André Michaux, that all the necessary papers were prepared and had been forwarded to Monsieur Germain, notary at Pontoise, to wit: a copy of the resolutions accepting the bequest; of the vote of condolence to the family of the deceased; a power of attorney executed by the President of the Society, and duly authenticated, in favor of Monsieur Germain; an affidavit made by the President, Vice-President, and one of the Trustees of the existence of the Society, and of its legal right to receive the bequest; a certificate of the election of Monsieur Michaux as an honorary member of the Society, in the year 1816. These documents were translated into French, and both (the original and translated) were duly received and acknowledged by Monsieur Germain.

It is very doubtful, however, if the bequest can ever be made available or useful to the Society, from the nature of the conditions which are attached to it. The facts, as reported by the Committee are, that Monsieur André Michaux, by his will, bearing date the thirtieth day of May, in the year eighteen hundred and fifty-two bequeathed to the American Philosophical Society, of Philadelphia, the sum of fourteen thousand dollars, and to the *Society of Agriculture and Arts of the State of Massachusetts, Boston*, the sum of eight thousand dollars,—and that, in a supplementary and explanatory will, bearing date the eleventh day of October of the same year, and in which he describes himself as a member of both societies, he states the purposes of these bequests, as follows:

“The legacies are made with the same intentions, that is, for the progress of agriculture, principally, in the States of Pennsylvania and Massachusetts, and subordinately in those of New Jersey, New York and Connecticut, New Hampshire and Maine. I express the wish that four fifth parts of these two legacies shall be invested by these two Societies, in buying a little farm or lot of land, to be cultivated in cereals or grasses,

so that the yearly grant may be employed at the end of each year in honorary premiums, to arboriculturists or horticulturists, who may have introduced, cultivated or improved useful trees or vegetables, either indigenous or exotic, or even remarkable for their beauty, but which shall nevertheless grow in the open ground. The authors of papers in these two rival branches of economy, arboriculture and horticulture, who shall have produced, or read before these two learned societies, shall have a right to these premiums, if they shall have been adjudged by these societies worthy of publication. These premiums might be in medals of gold or silver, or works treating of agriculture, or horticulture. The remaining fifth part of each of these two sums, that is to say, twenty-eight hundred dollars for the Philosophical Society, and the other, of sixteen hundred dollars for the Agricultural Society of Massachusetts, shall be invested, four fifth parts in buying, on the borders of the sea, one or several lots of sand and soil, and also some lots in the mountainous regions, the most stony, or most boggy and quaggy soils, considered hitherto so unproductive as not to have been cultivated, soils which I shall show them can be made very useful and profitable, by the culture of resinous trees."

"The other fifth part of these two sums, that is to say five hundred and sixty dollars, and three hundred and twenty dollars shall be employed by these two societies in sowing and in planting these lands as I shall direct, in a kind of instruction in which I shall make known the means which have succeeded best in France, with those soils which have remained for centuries uncultivated and spoiled by complete sterility."

The Committee after stating the facts, proceed to say, "it will be observed that this Society is not accurately described by its corporate name; but it is believed that no doubt can exist that it is the same intended in the will, as there was then no other existing to which the description could apply, while it does substantially indicate this; and inasmuch as he appears upon our rolls as an honorary member, and no other society of the like kind, in this State, can be supposed thus to have enrolled his name, the identity of this Society with that designated in the will, appears to be clearly established. It may be further remarked

that the entire will has not been received, and the extracts which have been furnished are translations, and not in the original language of the will."

At the February meeting, Mr. Winthrop, who represented the Society as delegate to the State Board, stated that a proposition had been brought before that Board to hold a State Agricultural Show the coming autumn, and that the aid of this Society was solicited. After a full discussion, it was the unanimous opinion of the Trustees that it would be better to delay it for another year, as it would interfere with the county shows, the arrangements for which were generally made; at the same time the Board was desirous of meeting the views of the State Board, which from its composition was the best judge of the matter. Mr. Winthrop was therefore instructed to say that if the show were concluded upon, to be held the present year, this Society would contribute the sum of two thousand dollars in premiums, or if it should be postponed to the following year, he was authorized to pledge the sum of three thousand dollars towards carrying it out.

A letter was received from Mr. Harvey Dodge, of Sutton, in relation to the importation of stock by the Society, which was referred to a Committee. At a subsequent meeting that Committee made a report, from which the following are extracts:—

"That the disposable funds of the Society are insufficient at the present time to permit any expenditures, of the comprehensive nature proposed by Mr. Dodge. In the opinion of the Committee, however, looking back to the past history of the Society, its usefulness has been more apparent, more marked and more permanent in its character, through the efforts it has made for the improvement of stock, by importation and otherwise, than in any other field of its labors; and it is deeply to be regretted that these efforts should not be systematically and steadily continued. With the present income of the Society, however, much of which is usefully and properly applied to the promotion of agriculture in other branches, but little can be done in the way of importation or care of stock."

"The Committee have been led to consider, in consequence of the letter of Mr. Dodge, and of other similar applications,

whether some plan could not be adopted of a permanent and practical nature, having for its principal object the improvement of all kinds of farm stock. To do this, it is not only necessary that it should be carefully selected with a view to its adaptability to our soil, climate and uses, but also that when brought together, it should be kept in such manner as that pure races should be bred, and kept up to the highest point of excellence, with a view of their being disseminated in that condition throughout the State."

As the subject is now under consideration of the Trustees, the plan for doing this, proposed by the Committee, is not inserted.

The day of the meeting of the Board was changed to the second Friday of each month, to accommodate Trustees living at a distance from the place of meeting, when impossible or inconvenient to go and return the same day.

Benjamin Guild resigned his office as Assistant Recording Secretary, after the annual meeting in June, 1856.

The Committee, on the resignation of Mr. Guild, reported the following resolutions:—

*"Resolved*, That the Trustees have received, with sincere regret, the resignation of Benjamin Guild, Esq., who has faithfully and gratuitously discharged the duties of Assistant Recording Secretary of the Society, for a term of nearly forty years.\*"

*"Resolved*, That the grateful acknowledgments of the Trustees, and of all the members, are due to Mr. Guild for his intelligent and earnest efforts to promote the interests and objects of the Society, during so large part of its existence, and that we cannot forget that the term of his service includes a period when the Massachusetts Society had but few coadjutors in the cause of agricultural improvement, and when the duties of its officers,

\* The duties of Recording Secretary were so much increased by the establishment of annual shows, that an assistant became necessary. Upon the recommendation of the Board of Trustees, the Society, at its annual meeting in 1818, created the office of Assistant Recording Secretary, and elected Mr. Guild to fill the same. Since that period the records have been kept by him to the present time, both of the doings of the Society and those of the Trustees. The shows having been discontinued, the vacancy created by the resignation of Mr. Guild has not been filled. Mr. Guild died on the 30th day of March, 1858.



and particularly of its Recording Secretary, were highly important, responsible, and arduous."

"*Resolved*, That an attested copy of these resolutions be communicated to Mr. Guild, and that they be laid before the whole Society, at its next annual meeting, for entry upon its records."

Hon. John C. Gray also resigned his office of President and Trustee during this year, having been a member of the Board for twenty-nine years, and its presiding officer for ten years, and the thanks of the Trustees were presented to him "for the faithful and efficient service rendered by him to the cause of agricultural progress and improvement, by the discharge of his official duties, so honorable to the Society and so beneficial to the public, and by his writings and example."

George W. Lyman, Esq., senior Vice-President, succeeded him in office, and the vacancy in the Board was filled by the election of David Sears, jr., Esq.

## A. D., 1857.

The Trustees having disposed of their Jersey stock, the question came up, as to the expediency of continuing the efforts which have been made by the Society from almost the commencement of its existence, in improving our breeds of cattle by importation of superior stock from England. Aided by past experience and by careful inquiry, as to the effect produced by bringing different breeds into the State, and looking at the wants of Massachusetts farmers in this respect, it was concluded that the introduction of good Ayrshire cattle would, on the whole, be the most advantageous for the State. The funds of the Society are not large enough to import many animals, and it was thought best to confine its efforts to one breed, and to keep the stock together, instead of distributing it as heretofore, disposing of the animals that shall be raised from it, from time to

time, in such a manner as to secure its increase, and permanence in the country. In accordance with these views, the sum of fifteen hundred dollars was appropriated in November last, for the purchase and importation of Ayrshire cattle. The season, however, was so far advanced, that it was thought expedient to defer sending out until the spring.

The Committee to whom the subject was referred, reported at the meeting in May, that they had made an arrangement with Mr. Sanford Howard to go out to England for the purpose of selecting and purchasing Ayrshire stock, four bulls and ten heifers, the cost of which they estimated, including the expenses of Mr. Howard and the passage of the animals, would not exceed thirty-four hundred dollars. They recommended that the appropriation heretofore made for this object be increased to this sum, (afterwards increased to thirty-five hundred dollars.) The instructions to Mr. Howard were "to purchase stock known here as the Swinley, color reddish brown, irregularly spotted with white, and small brown spots in the white. Horns, usually irregularly shaped, small horns preferred, thin in the neck, escutcheon mark desirable. Age of bulls from nine to twelve months, heifers two years old, and in calf by superior bulls. These directions to serve only as a general guide, great reliance being placed upon Mr. Howard's judgment in selecting superior animals. If the cost should exceed the estimated amount, the number of animals to be decreased, but not the quality, which must be the best that can be obtained. The animals to be shipped in two different vessels, and the arrangement for freight to be made before final purchase." The report was accepted, the appropriation increased as recommended, and the committee was requested to keep the subject in their charge until after the animals shall have arrived in the country, and a permanent disposition made of them.\*

An application was made to the Board requesting the Trustees to import Devon stock. It was declined, for reasons which will be apparent on reading the preceding pages, and also, be-

\* Mr. Howard took out orders from individual Trustees and others, to a large amount, for stock of various kinds, so that much good is expected to result from his mission.

cause in the opinion of the Board, there was already in the country as good Devon stock as could be purchased in England, which can be obtained at a comparatively moderate cost.

At the meeting of the Board in August, an account of the successful working of the Heath mowing machine in England was read, it having received the highest premium as a mower, from the Royal Agricultural Society in England. A discussion took place as to the cause of the want of success by those made for use this season, by Nourse, Mason & Co., who had purchased the patent. It was stated that the machine which went out to England, and the one which received the Society's premium the last year, were made at Sandusky, Ohio, and that the latter had been in successful operation during this season, by the person who purchased it after the award. It was decided to refer this matter to the Committee, under whose supervision the competing machines were placed, Messrs. Newell, Payson and Ward, and by whose recommendation the award was made, to investigate as to the working of the machine the present year. That Committee subsequently reported that the machine made by Nourse, Mason & Co., was defective in workmanship, and varied in some essential particulars from the original Heath machine. This had arisen partly from a serious injury to Mr. Nourse, who had been prevented from giving his personal attention to the matter. The Committee transmitted a letter received from the purchaser of the Heath Mower confirming their original opinion as to its excellence and superiority. The Committee could not, therefore, "retract the opinions they had given as to its superiority over the other competing machines, contained in their report."

It having been stated that great improvements had been made in tedding or hay-making machines in England, by which a great saving in labor had been effected, it was voted to order two of them, in order to set them in operation and test their usefulness here, and, if found to be adapted to the wants of Massachusetts farmers, to encourage their manufacture and use. These machines have been received, and are operating successfully, and it is hoped that they will prove as important labor-saving implements as the mower is, upon all tolerably well-prepared lands.

The following premiums were offered for Essays :—

- I. An inquiry as to the best breed of Cattle for the State of Massachusetts, taking into consideration *beef*, *milk*, and *work*. Does such a breed exist? If not, can it be made, either by crossing known breeds, or by selection, without reference to breed?
- II. Manures, natural and artificial. The best mode of preparation. The best mode of application,—having especial reference to the soil, climate, and crops of Massachusetts.
- III. The most useful system of instruction, by which to acquire a practical agricultural education, such as would fit a young man to commence the business of a farmer upon the average farming lands of Massachusetts.
- IV. Best Essay on the advantages to be derived from establishing regular fairs or market days throughout the State, for the sale and exchange of agricultural products, together with the best practical method for commencing and continuing them so as to create new markets to the farmer.

No Essay will be entitled to a premium, unless it shall be considered by the Trustees or by those appointed to decide upon its merits, to be of sufficient practical value to agriculture, to make it worthy of publication in the Transactions of the Society. The Essays must be sent in to the Secretary on or before October 1, 1858, and the name of the author must accompany his Essay, sealed up in an envelope, and not to be opened unless a premium is awarded to the writer.

A Committee was appointed to offer premiums on root crops. The Chairman reported, at a subsequent meeting, that inasmuch as premiums were offered for these crops by the County Societies generally, and as they can best supervise the method of cultivation pursued by competitors within their respective limits, and from the inherent difficulties of a formal examination of any particular crop throughout the State, it was not considered expedient to offer premiums for crops of this nature. It was recommended however that a premium should be offered, to be continued from year to year, or in some other form, so as to comply

with Statute, Ch. 42, Sect. 6, for the raising and preserving of oaks and other forest trees, best adapted to perpetuate within the State an adequate supply of ship-timber.

In pursuance of the above recommendation, it having been stated that the object intended by the statute above referred to, was to secure the raising and perfecting the growth of forest trees, and not simply planting them—that this could not be accomplished by annual premiums as for a vegetable crop—that the terms of the statute are fully complied with, both in the letter and in the spirit, by offering annually a premium, payable at a distant day, whereby the object of offering it can be attained, the following premium was recommended and finally adopted.

#### PREMIUM OF ONE THOUSAND DOLLARS.

“The above sum is offered for the best plantation of trees, of any kind commonly used for, and adapted to, ship-building, grown from seed planted for the purpose, or otherwise, on not less than five acres of land, one white oak at least to be planted to every twenty square yards. Notice in writing must be given to the Secretary of the Society, on or before January 1, 1860, of the intention to compete for the premium, stating where the land is situated, the nature of the soil, and what has been done in relation to the plantation up to the time of giving notice. The premium will be awarded in 1870, in case the success of any competitor has been such as, in the opinion of the Trustees, or of those appointed by them to adjudge the same, to give a reasonable probability that the plantation will produce eventually a fair supply of ship-timber, in proportion to the number of acres planted. The Society likewise claims the right, after awarding the premium, to designate from time to time what trees shall be reserved for timber, and the successful competitor shall give security, that the trees so designated shall not be cut for any other purpose.”





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